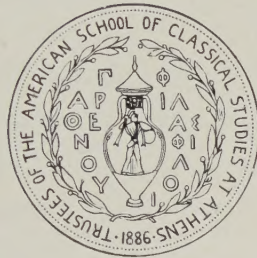


HESPERIA

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1933



THE AMERICAN EXCAVATIONS
IN THE
ATHENIAN AGORA
FIRST REPORT


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FOREWORD

It has seemed appropriate that this first "Agora Number" of *Hesperia*, with which begins the official preliminary publication of the results of the excavation, conducted by the American School of Classical Studies at Athens, of the Market-place and centre of the civic life of ancient Athens, should be accompanied by a brief prefatory statement by the Chairman of the Managing Committee of the School.

The Director of the excavation, Professor T. Leslie Shear, early declared it to be his wish and intention to make known with the least possible delay, not only the progress of the undertaking from year to year, in the form of annual reports of each campaign of digging, but also to publish soon after their discovery the individual finds of significance; and likewise freely to discuss in articles the problems toward the solution of which the newly discovered finds should contribute. This programme evoked the hearty coöperation of Dr. Shear's colleagues at home; for it was recognized that an exceptional interest, among both scholars and laymen, attaches to the Agora of Athens, and that many persons would be glad to be able to follow the progress of its excavation. Indeed, all who are interested in the history of the city whose civilization has so profoundly influenced the rest of the world are entitled, in the opinion of the American School, to learn from year to year whatever the soil of the Agora yields up that throws new light upon the history, institutions, topography, architecture, art, religion and, in general, the culture, of the ancient Athenians.

The plan of publication which is now being inaugurated has accordingly been adopted. Reports, articles and discussions dealing with the results of this excavation will be arranged for by Dr. Shear and brought together into separate issues of *Hesperia*, the journal of the School. This means that what may be called the primary articles about the undertaking will not be scattered about in a number of periodical publications, nor mingled with articles on other topics in other issues of *Hesperia*, but will be found exclusively in the issues devoted wholly to the Agora. These special issues will be numbered consecutively, so that the completed series of "Agora Numbers" of this journal will have told, in the Director's reports, the entire story of the successive campaigns, and, in the articles, will have made known rather fully, though in a form that is preliminary and not final, whatever objects or facts of importance the excavation has brought to light. The reports and articles, which will be fully illustrated, will place at the disposition of scholars generally such new information, essentially, as the excavators themselves possess. When, therefore, the time comes, after the work of exploring the area has been finished, for preparing the final publication in book form, the editors will

have the benefit, it is hoped, of a large body of criticisms and suggestions from the ablest specialists, at home and abroad, in every field.

The boundaries within which the Agora of ancient Athens was included have long been approximately known. Roughly speaking this area extends from the northern slopes of the Acropolis and Areopagus on the South to the Athens-Piraeus underground railway on the North, and from the "Theseion Hill" on the West to the Stoa of Attalus on the East. East of this area, again, lay a post-classical extension of the older Greek Agora made in the period of Roman domination and generally called the Roman Agora. The area included in the Greek Agora is about sixteen acres, that of the Roman Agora somewhat less. The whole region has in modern times been thickly populated and is built over. Excavations have been conducted in the Roman Agora by the Greek Archaeological Society, but the wide expanse of the Greek Agora has been explored in only a few places.

The project of excavating both the old Greek Agora and the eastern extension of it in their entirety had long been cherished by Greek archaeologists before any foreign group was considered eligible. For more than fifty years the region has been more or less strictly treated as an "archaeological area" and reserved for future excavation, and the erection of new buildings has been prevented or discouraged by successive Governments. But the acute housing situation which followed the War as the result of the amazing growth of the population of the city made it clear to Greek archaeologists and to the Government that unless actual excavation could be begun in the very near future the realization of the hope of laying the region bare would have to be abandoned. In 1924 a bill was introduced into Parliament which provided for the expropriation of the privately owned properties in the Agora region and its ultimate excavation by the Greeks. This bill, however, failed of passage.

When the Greek Parliament had declined to authorize the excavation, as a Greek project, of which the cost was presumably to be borne by the Greek Government, foreign Schools were consulted concerning the problem by the Minister of Public Instruction. When the Director of the American School, Mr. B. H. Hill, expressed on behalf of the American School an interest in the subject, he was encouraged to address an inquiry to the Ministry. This he did on December 3, 1924. The question of American participation was laid by the Minister before the Archaeological Council, which advises the Ministry in such matters. The Council approved the suggestion. Thereupon the Minister informed Mr. Hill, on January 14, 1925, that the American School would be given permission "to conduct excavations in the ancient Agora, to whatever extent desired, provided only that the School obtain sufficient funds of its own to pay for the expropriation of the private houses occupying the land in question." This communication was transmitted by Mr. Hill to the Chairman of the Managing Committee and by him laid before the Committee at its annual meeting in May 1925. The Committee then passed a resolution "that every effort should be exerted to make possible the acceptance of this magnificent opportunity, and that

the Chairman be empowered to take such measures to this end as may seem to him appropriate."

In this resolution the phrase "take measures" meant to find a source of financial support for the large undertaking—even in those times no easy task, especially since the School was at that moment engaged in raising money for the endowment of its regular work. However, attempts were made in several directions, and one effort bore fruit, through the helpful intervention of Dr. Abraham Flexner, who made a visit to Athens and came back convinced of the importance of the project and enthusiastic about the opportunity offered to American archaeologists. On March 15, 1927, an offer was made by a friend of the School, who preferred to remain anonymous, and communicated through Dr. Flexner, to place at the disposition of the School a considerable sum as soon as a satisfactory arrangement for the excavation should have been made with the Greek Government. The original gift, it was stated, was for the purpose of making a trial excavation in order to test, on the one hand, the site itself from the scientific point of view, and, on the other, the practicability of the project under the conditions that should be found to exist in Athens. At the same time the Donor expressed the hope and expectation that, as the work progressed, he would be justified in continuing his interest in the undertaking.

The Trustees of the School promptly took the necessary measures to begin negotiations with the appropriate officials of the Greek Government. In the prosecution of these negotiations the Director of the School, Professor Rhys Carpenter, coöperated with the Chairman of the Managing Committee. Many conferences were held throughout the summer of 1927. It so happened that a coalition Government was in power, and agreements were difficult to conclude. Considerable opposition to the project had also developed among the population of the region affected, and this opposition had political influence. It was also found that the Government felt that it must insist upon including the Roman Agora in the concession. Such extension, however, besides greatly increasing the expense, involved an infringement upon the claims of the Greek Archaeological Society to the Roman Agora, where it had already made extensive excavations and naturally had priority over any new-comer. In recognition of these claims the School entered into an agreement with the Archaeological Society for the joint participation of both parties in the excavation, should it take place, subject to the approval of the School's Trustees. On the strength of this understanding an agreement was concluded with the Greek Government in August 1927, and soon afterward was submitted to the Trustees for their consideration.

Some of the stipulations of this first agreement were found to be inconsistent with the terms of the proposed gift of money, and the doubling of the territory to be excavated involved a greater expense than the School was prepared to assume. The Greek Government was so notified and matters remained in an uncertain status until June 1928. The negotiations were at that time resumed with a new Government, which soon made it clear that it desired to have the excavations made. The agreement

of 1927 was ignored as if it had never existed. A new approach was made to the intricate problems, and steady progress was made. A formal agreement was reached on August 6, 1928, on terms which recognized the conditions to which the School was under obligations to conform. For this outcome I am glad to have this opportunity of expressing my acknowledgments to Dr. K. Kourouniotis, Chief of the Archaeological Bureau of the Ministry of Public Instruction, and also to my own friends and counsellors, Mr. A. Adossides and Mr. Aristeides Kyriakides.

In the new agreement the American area was again limited to the Greek Agora, a decision which solved a problem by leaving the Roman Agora again free for excavation by Greek archaeologists. New machinery was set up for arriving at just appraisals of the value of the property to be excavated, for its expropriation, for the legal processes to be followed in cases of appeal by either party, for the indemnification of tenants who would be obliged to find other homes, and for every other contingency that could be foreseen. The agreement received the approval of the Trustees of the School, and work was begun in Athens upon the drafting of the special law to be laid before Parliament. In the preparation of this law representatives of the School participated.

The law met with the approval of Parliament in the late winter of 1929 and was published in the official Gazette on March 23, 1930. But several amendments had later to be passed to correct errors in the text, and it was not until April 9, 1930, that it went into effect in its final form. The business of appraisal and expropriation was then taken vigorously in hand, the appeals from the decisions of the Court of First Instance were heard and disposed of by the higher courts, and in January 1931, the occupants of the houses in the two blocks which had been selected for the first digging received notices to move, for which a period of grace of ninety days is allowed by the law. By the third week of May the houses had been demolished and Dr. Shear and his staff began the work of excavation.

In the meantime the problem of the form of organization that should be effected for the proper execution of the work in its several aspects had been made the subject of study and conference, chiefly by the Trustees of the School. It should here be explained that the School is an incorporated body. A Board of Trustees holds and administers the property; but it has delegated the educational and scientific work of the institution to a body called the Managing Committee, which consists of some seventy-five representatives, all professors, of the universities and colleges which contribute to the School's support. Obviously the scientific work of excavation and of interpreting and publishing the results of the excavation was a function which belonged to the group of scholars. But the enterprise from another point of view would be rather largely concerned with pure administration, the handling of funds and accounting for them, with the making of contracts, with real-estate transactions, and with legal matters of a highly specialized type. Furthermore, the Trustees had entered into contractual relations with the Donor of the funds on the one hand and with the Greek Government on the other. The life of these contracts would be a considerable period, namely the life of

the undertaking including the final publication of the results and provision for the proper care of the objects found. All these considerations entered into the study. The Trustees worked out a plan for a continuing composite body in which the academic and the practical elements should be combined, the former drawn from the Managing Committee and the latter from the Trustees. This body received the designation of "The Commission for the Excavation of the Athenian Agora." It has charge of the whole undertaking, being responsible directly to the Trustees of the School, but reporting on its work to the Managing Committee also. The Commission in the beginning consisted of the following members:

Mr. Williams Rodman Peabody, *President of the Trustees*
Mr. Allen Curtis, *Treasurer of the School, Treasurer of the Commission*
Mr. A. Winsor Weld, *Secretary of the Trustees, Secretary of the Commission*
Dr. Edward Robinson, *Director of the Metropolitan Museum of Art*
Dean George H. Chase, *Harvard University*
Professor LaRue Van Hook, *Columbia University*
Professor Benjamin Dean Meritt, *University of Michigan*
Professor Edward Capps, *Princeton University, Chairman of the Managing Committee,*
Chairman of the Commission

The death of Dr. Robinson in April 1931 removed a most valuable member of the Commission. Otherwise its membership has remained unchanged except for the election of Professor T. Leslie Shear as a member *ex officio* after his appointment to the post of Director of the excavation.

The business administration had to be organized and to take up its duties nearly a year before the work of excavation should begin. The Commission invited Mr. A. Adossides to assume charge of this department and was very fortunate to secure him. He was at the time the Executive Secretary of the Refugee Settlement Commission, in the organization and administration of which he had rendered invaluable services. During the War he had been Governor of Eastern Macedonia and there also had won distinction as a high-minded, able executive and an exceptionally skilful diplomat. During the War period he had become personally known to several members of the Commission and the friendly relations which had originated then had ripened into a warm friendship. Mr. Adossides built up a highly efficient body of advisers for the expert work which passes through his office and a competent group of accountants. Among the former may be mentioned Mr. Aristeides Kyriakides, our counsel and legal adviser, and Mr. A. Korizes, expert in real-estate and property values. Our business transactions, although large and of a highly complicated nature, have been conducted with exemplary strictness and accuracy. We are also under obligations to Mr. Harry Hill of the American Express Company for many courtesies in connection with our banking and exchange problems.

As to the Directorship of the excavation, the Commission was unanimous in desiring to have Professor T. Leslie Shear of Princeton University in that position. And fortunately

Professor Shear was willing to accept the responsibility. His training and experience had equipped him for a great enterprise of this nature, in which learning, a broad and intimate knowledge of the history, literature, and institutions of the Athenians must be combined with administrative ability and the power of leadership. During the preceding twenty years he had attained a high standing among excavators by his work in Knidus, Sardes and Corinth. Dr. Shear's academic training was gained at Johns Hopkins University, where he received the Doctor's degree in Classical Philology, a training which was supplemented by two years in the American School at Athens and at the University of Bonn, a period which was devoted to Classical Archaeology.

The staff which has been brought together consists of two elements, the special "Agora Fellows" and those appointed for some special responsibility or function. For the system of Agora Fellows funds have been granted by the Rockefeller Foundation sufficient to finance the Fellowships through the campaign of 1936. Two Fellows are appointed each year, and they agree to serve for three years if their services are needed. They are selected by the Commission on the basis of their scholarly maturity and promise and their academic record. They are first given a training in field work and then as soon as possible entrusted with the responsibility of taking an excavation area in charge. The six Agora Fellows under appointment each year bear the principal responsibility, under the Director, for supervising the actual digging. Up to the present time seven appointments have been made; two have completed the three-year term of service, and one of these, Dr. Homer A. Thompson, has been given a supplementary appointment. The list is as follows:

- 1929 to 1932: Homer A. Thompson, Ph.D., University of Michigan
 Frederick O. Waagé, III., M.A., University of Pennsylvania and Princeton
 Mary Wyckoff, A.B., Bryn Mawr (artist)
- 1931 to 1934: Dorothy Burr, Ph.D., Bryn Mawr
 Eugene Vanderpool, M.A., Princeton and University of California
- 1932 to 1935: James H. Oliver, Ph.D., Yale University
 Arthur W. Parsons, A.B., Yale University

The staff for the third campaign, which will begin in January 1933, is made up as follows:

- Professor T. Leslie Shear, Ph.D., *Director of Excavation*
 Professor Richard Stillwell, M.F.A., Director of the School; *Supervising Architect*
 Professor A. D. Keramopoullos, Ph.D., of the University of Athens; *representing the Archaeological Society of Athens*
 Professor Benjamin Dean Meritt, Ph.D., University of Michigan; *Epigraphy*
 Miss Hetty Goldman, Ph.D., *Pottery*
 Mrs. T. Leslie Shear, A.M., *Coins*

Homer A. Thompson, Ph.D., *Special Fellow*
Miss Dorothy Burr, Ph.D., *Agora Fellow*
Eugene Vanderpool, A.M., *Agora Fellow*
James H. Oliver, Ph.D., *Agora Fellow*
Arthur W. Parsons, A.B., *Agora Fellow*
Miss Lucy Talcott, A.M., *Records*
Miss Mary Zelia Pease, Ph.D., *Fellow, Coins*
Charles Spector, B.Arch., *Fellow in Architecture*
Miss Virginia Grace, A.M., *Records*
Mrs. Elizabeth F. Dow, A.B., *Records*
Miss Gladys Baker, A.B., *Coins*
Piet de Jong, *Artist and Architect*
Mrs. Joan Bush, *Photography*
H. Wagner, *Photography*

The above matter-of-fact statement is intended principally to supply to any who may be interested the leading facts about the origin of the undertaking and the practical measures which have been taken to enable the American School of Classical Studies at Athens to discharge creditably the heavy responsibility which it has assumed. What the outcome may be, as measured in terms of scientific gain, *ταῦτα θεῶν ἐν γούνασι κείται*. But at least the favor of men has not been lacking, as witness the unexampled generosity of our anonymous friend, the good will of the officials of the Greek Government and of the citizens of Athens, and the loyalty of our own archaeologists led by Dr. Shear.

EDWARD CAPPS

THE PROGRESS OF THE FIRST CAMPAIGN OF EXCAVATION IN 1931

PLATE III

The Agora or market place of ancient Athens was the area in which the principal public buildings of the city were located. In it were the Royal Stoa, where the chief magistrate had his office, the Senate House, where the legislative body met and where important treaties were filed, the Prytaneum and Tholos, the painted Stoa and the Stoa of Zeus Eleutherius, temples of Apollo and of Demeter, of Ares and of Hephaestus, altars of the gods and innumerable statues of gods, of heroes and of illustrious men. Thus the Agora was the most important part of the ancient city, after the sacred precinct of the Acropolis. Although few traces of its monuments remain above ground the boundaries of the Agora are approximately known from references given by ancient writers to its buildings in their relation to the geographical terrain. In this way we are certain that the area lies north of the west end of the Acropolis, north of the Areopagus, and east of the Kolonos Agoraios, the hill of the Agora, on which now stands the well preserved temple that is traditionally called the Theseum although scholars are generally agreed that it should be identified as the temple of Hephaestus.

Because of the importance of the site of the Agora in antiquity the region has long been designated by the Greek Government as an archaeological terrain, and its ultimate excavation has always been on the programme of the Greek archaeological authorities. Shortly after Greece secured her independence from Turkish rule a decree of King Otho, published on July 18, 1833, declared the area expropriated for archaeological excavation and set a price for the property at the rate of seventy lepta the square pik, which is equivalent to about fourteen cents for $5\frac{1}{2}$ square feet. Although this amount is trifling in comparison with the present value of the land, for which an average sum of three dollars has been paid for the same unit, other pressing needs of the Government prevented the realization of the plan either at that time or at several later attempts to revive it. Some excavations, however, have been made in the area. In the years 1859 to 1862 and in 1898 to 1902 the Greek Archaeological Society uncovered the entire Stoa of Attalus, and the so-called Stoa of the Giants was excavated by the same society in 1859 and in 1871. But as neither of these buildings is mentioned in the itinerary of Pausanias, investigations in search of the Stoa Basileios were undertaken below the Kolonos Agoraios by the German Archaeological Institute, under the direction of Professor Dörpfeld, in 1896—1897, and by the Greeks in 1907. These excavations resulted in the uncovering



Fig. 1. View of the Agora from the West showing the Area of the Old Excavations and Sector E of the New Excavations

of a series of foundations which have not yet been satisfactorily interpreted, and in the important discovery of a colossal statue of Apollo, which is probably the cult-statue of Apollo Patroos by Euphranor.

The excavations in the area were not extensive or long continued because the district is thickly settled with houses, as is clearly shown by the photographs reproduced in Plate III and in Figure 1, and consequently the costs preliminary to excavation are exceedingly high. But the value of property everywhere in Athens has been steadily increasing in recent years in proportion to the growth of the population and of the prosperity of the country. The restrictions on construction in the area of the Agora were burdensome to the property owners, and it became apparent that if excavations were not begun at once the expense of acquiring the property would increase to such a point as to prevent effectually archaeological investigation of the terrain on the large scale which was clearly indicated to be necessary. At this juncture of the situation, in 1924, the Greek archaeological authorities consulted with Dr. B. H. Hill, Director of the American School of Classical Studies at the time, as to the possibility of the project being undertaken by the American School. After much discussion of ways and means between the Greek Authorities and Professor Edward Capps, representing the School, it was finally agreed that the American School would conduct the excavation with the coöperation of the Greek Archaeological Society. As has been explained by Professor Capps in the Foreword, the enterprise is controlled by a Commission composed of members of the Board of Trustees and of the Managing Committee of the School under the chairmanship of Professor Capps. The Greek Archaeological Society is represented by its secretary, Professor George P. Oikonomos, and by the presence on the staff of Professor A. D. Keramopoulos of the University of Athens.

The entire area of the Agora covers about twenty-six acres of land on which are built six hundred houses with between 6,000 and 7,000 inhabitants. As the excavation of this terrain in its entirety seemed too large an obligation for the American School to assume, and as the eastern part of it is distinctively the market of the Roman period, it was agreed that the Greek archaeological authorities should assume the task of excavating the eastern part, leaving to the Americans the western section, which is the site of the specifically Greek Agora. The American zone includes about sixteen acres of land situated between the Kolonos Agoraios on the west and the east side of the Stoa of Attalus, and bounded on the north by the Athens-Piraeus electric railway, and by the Areopagus and the Acropolis on the south. In this area 367 houses and parcels of land are located and the immediate aim of the first campaign was the discovery, beneath these streets and houses teeming with modern life, of some conspicuous landmark of the ancient city which would serve as a point of departure for future exploitation of the site. The constant guide in topographical researches in the area has been the admirable and authoritative work on the topography of Athens by Professor Walther Judeich, a book which is a mine of information and a masterpiece of interpretation (*Topographie von Athen*, 2nd ed. Munich, 1931).



Fig. 2. City Plan of the American Zone of the Agora

In order to enhance the probability of the discovery, at an early stage of the campaign, of a building which could be identified with one of those mentioned in Greek literary records, parts of six city blocks were selected for trial excavation. These blocks are marked on the plan of the area which is given in Figure 2, and are designated by letters of the Greek alphabet. The two northern sections, A and E, adjoin the site of the earlier excavations, and it was hoped that their clearance might reveal the Royal Stoa, and might clarify some of the problems involved in the interpretation of the foundations which had been previously uncovered. Figure 1 shows the site of Sector E of the new



Fig. 3. Sector E. The first House to be Demolished

excavations, which lie on the east side of Poseidon Street, with the area of the prior excavation in the foreground and with the Acropolis in the distance beyond.

The fifteen houses in Sectors A and E came into the possession of the American School in April 1931 and demolition of them was begun on April 20. The contract for wrecking the houses was awarded, after competitive bids, on very favorable terms, since the contractor paid \$1,000 to the School for the materials in addition to clearing the terrain to street level. The demolition was conducted under the eye of a member of the scientific staff, who salvaged any ancient marbles which had been built into the walls of the modern houses. The first house to be torn down was located on Eponymon Street in the south-east corner of Sector E, Fig. 3. The work was performed slowly and carefully so that ancient blocks in the walls might not be overlooked (Fig. 4), but the site was sufficiently

cleared by May 25 to permit the start of excavations on that date. The campaign was initiated without formal inauguration, but with the blessing of the priest of the neighboring church of the Virgin of Vlasaros and in the presence of Professor Oikonomos and of members of the American School. The work was continued for a period of ten weeks and as the average depth of the deposit of earth was found to be ten feet it involved the removal of about 7,000 tons of earth. The carting away of the excavated material was done by contract, let after competition to the lowest bidder, and the contractor secured from the police the designation of places for dumping, which were outside of the



Fig. 4. Sector E. The Progress of the Demolition

city, along the sacred way to Eleusis. The workmen engaged in the excavation were under the control of Sophokles Lekkas, a foreman who had acquired skill and experience from his service in many archaeological campaigns at Corinth.

Special attention has been paid to the development and perfection of the system of accurate recording and of careful description of the objects which are found from day to day. An archaeologist of the staff has the supervision of each area of excavation. The areas are divided into squares of one metre so that the place of finding is immediately obvious, and the depth is reckoned from a fixed point determined by the height above sea level. The scholar in charge of an area keeps a field note book in which all details of the progress of the excavation are neatly and fully recorded. The areas are designated by letters of the Greek alphabet and when an object is found it receives a serial number

prefixed by the letter of the area. It is then entered in the note book with the specification of the exact place of discovery and with a description which includes its dimensions. A drawing of it is made in the book or else a space is left for the subsequent insertion of a small photograph. A tag with the date of finding and with the serial number of the area is attached to the object which is sent to the workrooms. There it is washed, its serial number is checked by the finder, and it is handed to the cataloguing department. It then receives a final inventory number which is entered in an inventory book, and a full description of it is written on a catalogue-card, which carries a small photograph



Fig. 5. Sector E. The Start of the Excavations

of the object in its upper left corner. The color of the card indicates the type of object such as sculpture, pottery, terracottas, lamps, etc., and the position of the tab marks other specifications as, for example, the period, whether Greek, Roman or Byzantine. The object is finally placed in a drawer or on a shelf in the position designated by its serial number. By this accurate method of recording nothing from the excavations can go even temporarily astray, and any object desired can be at any time immediately located. All the discoveries are housed in a building in a corner of one of the expropriated blocks, marked *m* in the northeast corner of ΣT on the plan given in Figure 2. The ground floor of this house has been transformed into a provisional museum, and the remainder of the building is used for headquarters for the staff, for work and study rooms, for the coin-cleaning apparatus and for the cataloguing department. Here, too,

technical experts are constantly occupied with piecing together broken marbles, or with cleaning and sorting and mending the innumerable shattered vases.

Shortly after the start of excavation, which was made at the southern end of Sector E under the supervision of F. O. Waagé (Fig. 5), a heavy shower of rain filled the excavated area with a deep pool of water which temporarily caused a suspension of operations (Fig. 6). But while the problem of the disposal of the water was under consideration by the staff an underground vent was opened by the pressure of the water above it and the water flowed away with great celerity. The explanation of this fortunate occurrence



Fig. 6. Sector E. The Excavation Flooded

was revealed at a later stage of the campaign by the discovery of a great drain or water-channel, which passes through this area in a direction from south to north and with a gentle slope towards the north. The drain, a short section of which is shown in Figure 7, is admirably constructed with a stone floor, with walls built of polygonal masonry which date from the latter half of the sixth century B.C., and with a cover of heavy limestone blocks. This structure has suffered various vicissitudes, for the original cover has been broken away at several points and has been replaced by inscribed marble stelae. But even at a comparatively late date, subsequent to such repairs, a considerable volume of water must have poured regularly through the drain because the surface of the marble is badly worn wherever the stelae have been accessible to the action of the water. The objects found in the earth with which the channel was



Fig. 7. Sector E. The Large Drain



Fig. 8. Sector E. View from the East during the Excavation

partially filled are uniformly of the Roman period, first to fourth century A.D., but water in this neighborhood must always have had an outlet through this drain to a greater or less extent.

As the excavation of this area progressed it became apparent that a road or street, passing through the Agora from north to south, had been uncovered in this sector, and



Fig. 9. Sector E. View from the Southwest

that the course of the water-channel lay beneath this street. Support of this view is furnished by the discovery of two buildings, one on the west side of the area and the other on the east, each of which faces the broad way lying between them. A view of the area in course of excavation, taken on July 22, 1931 and reproduced in Figure 8, shows the front of the building on the west side as it was partially cleared. Since the foundations behind this structure in the area of the earlier excavations showed that it was a narrow building, and since the new excavations proved that it was a long hall with a columnar façade, it was provisionally identified as the stoa mentioned next after

the Stoa Basileios by Pausanias, in front of which stood statues of Zeus Eleutherius and of the Emperor Hadrian. Subsequently confirmation of this interpretation was provided by the discovery of a statue of Hadrian lying in the great water-channel in front of the north end of the stoa.

On the east side of the street a small marble building, with four steps on its west face, was uncovered. The size and type of the structure indicate the probability that it was an altar, as is suggested by Professor Stillwell in a later article, and as literary references to the altar of the Twelve Gods point to its location somewhere in this section of the Agora, this building has been provisionally identified as that altar.



Fig. 10. Sector A before the Demolition of the modern Houses

A third building in this sector has a curious shape. It is a long, narrow rectangle with a row of post holes on each side. The posts have cuttings to support a railing by which the area was fenced, and a row of light foundation blocks in the interior marks the base on which the objects thus protected were placed. No satisfactory explanation of this building is available, and the only possibility which has been suggested is its interpretation as the Stoa of the Herms. But no evidence whatever has been secured to warrant such a deduction, and the solution of the problem must await some fortunate discovery in the further extension of the field of excavation.

The appearance of this area near the close of the season of 1931 is shown in Figure 9 which is a view from its southwest corner. A piece of the stylobate of the Stoa of Zeus appears in the foreground, with the heavy foundations on which it is based seen

from behind. Beneath these foundations, at a depth of about three metres below the euthynteria of the stoa, a small area was uncovered which is paved with large blocks of irregular shape. This may be an early paved court or street, but it cannot be further investigated until after the complete removal of the adjoining section of the modern Poseidon Street.

Just in front of the south end of the Stoa of Zeus a marble herm was found with a well preserved bearded head. Professor G. P. Oikonomos has kindly consented to



Fig. 11. Sector A. View of the Area from the Northeast before the Beginning of the Excavation

prepare a study of this statue for publication in a later *Agora* number of *Hesperia*. In a late wall nearby a statue of a woman and several inscriptions had been imbedded. The inscriptions and the statue, which had been broken into four large pieces, are published in subsequent articles in this number.

The property in Sector A was acquired shortly after that in E and the excavation of it proceeded simultaneously under the supervision of Dr. Homer A. Thompson. Figure 10 gives a view of the area from the south before the demolition of the houses, and the same terrain, as it appeared when cleared to street level is shown in Figure 11, which was taken from the northeastern direction with a short stretch of Poseidon Street visible in the foreground. The excavation of this area revealed, at an average depth of

three metres below street level, the foundations of a building which faces east and extends north and south throughout the area for a distance of about forty metres. It is cut at the north end of the area by the road-bed of the Athens-Piraeus electric railway. The records show that similar foundation blocks were removed when the railway was constructed so that it is clear that the building extended beyond the



Fig. 12. Sector A. View from the Northwest at the Close of the Season

railway to the north, but the determination of its northern limit must await future investigation in an area which lies outside of the designated archaeological terrain of the Agora.

The foundations which were uncovered belong to a long narrow building constructed with two rows of columns. A view of the area as it appeared near the close of the season of 1931, taken from the northwest, is given in Figure 12. The shape of the building is clearly that of a stoa, and as it lies at the base of the Kolonos Agoraios, on the right as one enters the Agora, the position exactly fits the description given by Pausanias of the location of the Stoa Basileios. Thus the identification of the new

building as that stoa may be regarded as definitely established. It is interesting to observe that the site of the building almost exactly coincides with the hypothetical position assigned to it by Professor Judeich. This building is fully described from the architectural point of view by Professor Stillwell in his article on the architectural discoveries, and it will be discussed historically after the completion of the excavation of the neighboring terrain on the east.

The objects found in the course of the campaign will be published in succeeding articles by various members of the staff. These studies are necessarily of a preliminary nature, and they will differ in the degree of completeness with which the material is presented. It will not be feasible or desirable to attempt the annual publication of all groups of objects, and some articles in future numbers of *Hesperia* will represent the study of material, here omitted, which shall have been accumulated in the course of more than one campaign.

T. LESLIE SHEAR

ARCHITECTURAL STUDIES

I. THE ROYAL STOA

Plate IV

GENERAL DESCRIPTION

Between the area excavated by Professor Wilhelm Doerpfeld in 1896-97 east of the Theseum,¹ and the line of the electric railway to Piraeus, a sector was excavated in the campaigns of 1931 and 1932 in which were laid bare the foundations of a large stoa with a rectangular building behind it to the west (Figs. 1 and 2). This may be identified as the Stoa Basileios mentioned by Pausanias at the beginning of his description of the Ancient Agora of Athens.² Only about forty metres of the southern part of the stoa have been uncovered. There remain unexplored the northern part of the building, cut through by the railway, and a return projecting east from the south end of the stoa, lying under a sector that is to be included in the coming campaign.

The remains, which will be described in detail below, consist of the foundations of the back wall of the building, the piers for the interior colonnade, and part of the foundations of the exterior or front colonnade with the cuttings in the rock for the same wherever they have been ripped out. A single course of five marble blocks remains to show the location and level of the first step of the crepis at the south end of the building.

The building behind the stoa, dating from the third century before Christ, is a rectangle measuring 12.50 m. by 16.50 m., divided into two equal parts by an east-west wall. It is clearly an addition to the stoa, and apparently communicated with it, for there is no possible approach to the lower level of the smaller building save through the larger.

THE STOA

The only significant dimension of the stoa that can be ascertained at present is its depth, which was very nearly 11.50 m. measuring from the socle of the back wall to the presumed face of the lowest step of the crepis. The spacing of the interior columns works out at very nearly 6.00 m. on centres, and consequently gives a submultiple of that distance for the exterior supports. The usual restoration would be to have two exterior supports for one in the interior, but certain difficulties that arise when a restored plan is attempted make it quite possible that the ratio was three to one. Sufficient fragments have been found to show that the outer order was Doric, the inner,

¹ *Ath. Mitt.* XXI, 1896, pp. 107 ff.; XXII, 1897, p. 225. *Ant. Denkm.* II, T. 37.

² I, III, 1.

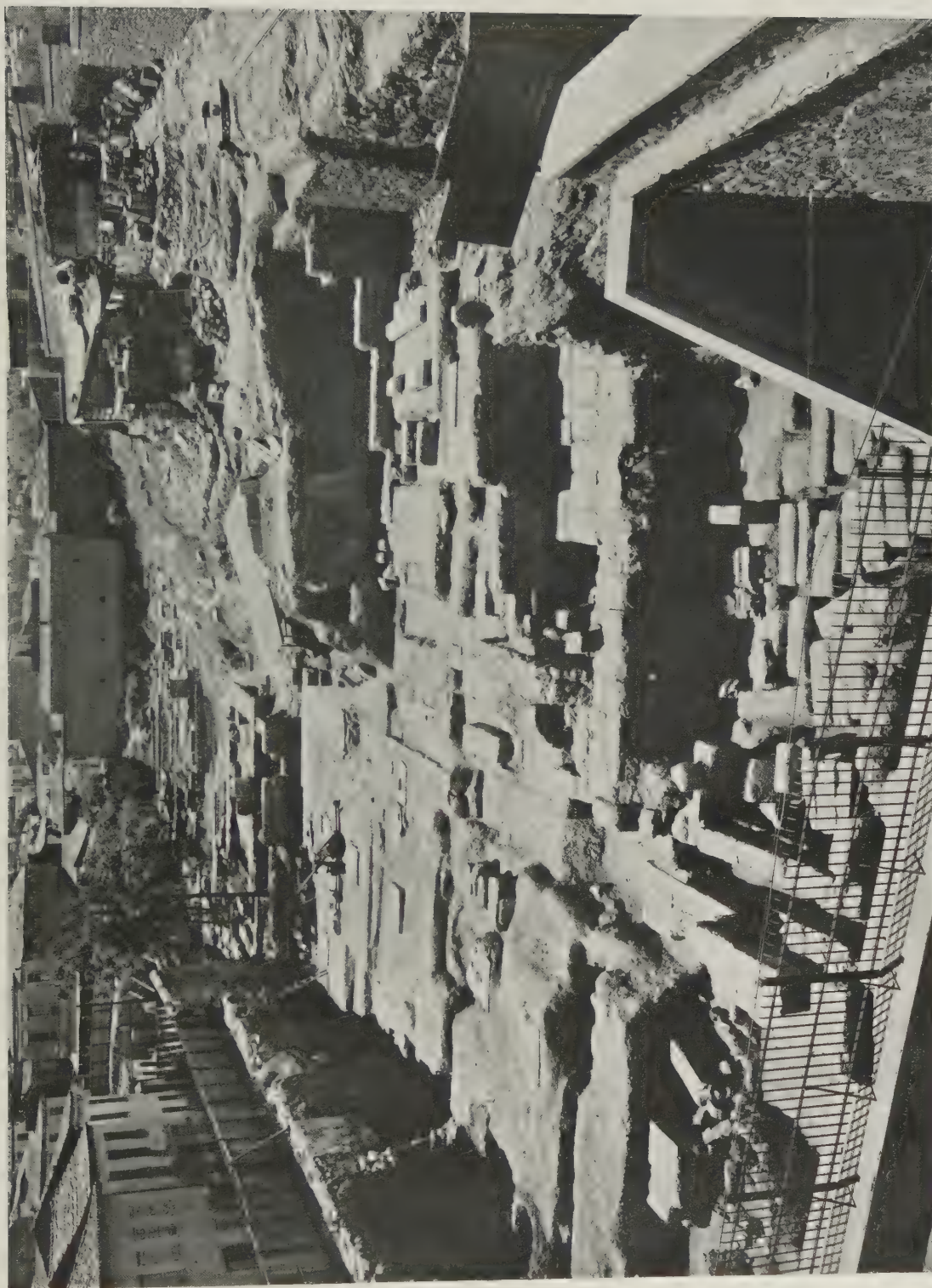


Fig. 1. View of the Royal Stoa from the North

as might be expected, Ionic. On the other hand there are not enough data to make a complete restoration of the orders, and consequently this will not be attempted until further research furnishes additional indications, or shows that no more information is to be expected.

One interesting fact that may be noted from the plan is that the spacing of the interior supports is greater than half the depth of the building, and as a consequence



Fig. 2. Hellenistic Building behind Royal Stoa. View from the East

this spacing is reduced to a distance that is consonant with the problem of turning the corner when the south end of the interior colonnade is reached. The piers next to the interior southwest corner one are drawn in to an approximate distance of 4.80 m. on centres from it.¹ This fact, together with the fortunate find of a cornice block which forms an interior angle, points conclusively to the presence of an eastward projection at the south end of the stoa, and, by inference of symmetry, to a similar projection at

¹ A variation of a few centimetres in the spacing of the foundation piers and the absence of definite setting lines make accurate measurement of these spaces difficult.

the north end. There is a building of a considerably later period than that in which the present stoa must be dated which has just such characteristics, namely the Stoa of Antigonos at Delos.¹ Possibly the Athenian building furnished an example for the Delian.

A noticeable irregularity occurs in the line of the foundation for the rear wall, which is not straight but bends to the west as it runs southward from the railway. The actual point of the bend is unfortunately not preserved, having been torn away in the con-



Fig. 3. Water Basin at South End of Royal Stoa

struction of a mediaeval well. The explanation of this peculiarity is not apparent, unless one supposes that part of the foundation is of an earlier date, and that the bend was the result of an addition or alteration. That the back wall was straight, however, is shown conclusively by the setting line which can be traced along the top of the foundation. There is no evidence that the building ever ran further to the south, for the level of the rock rises shortly beyond the south steps. On the other hand no cutting exists to show that the stoa formerly terminated where the bend in the foundation seems to come. The angle may be the result of a slight change in orientation after the

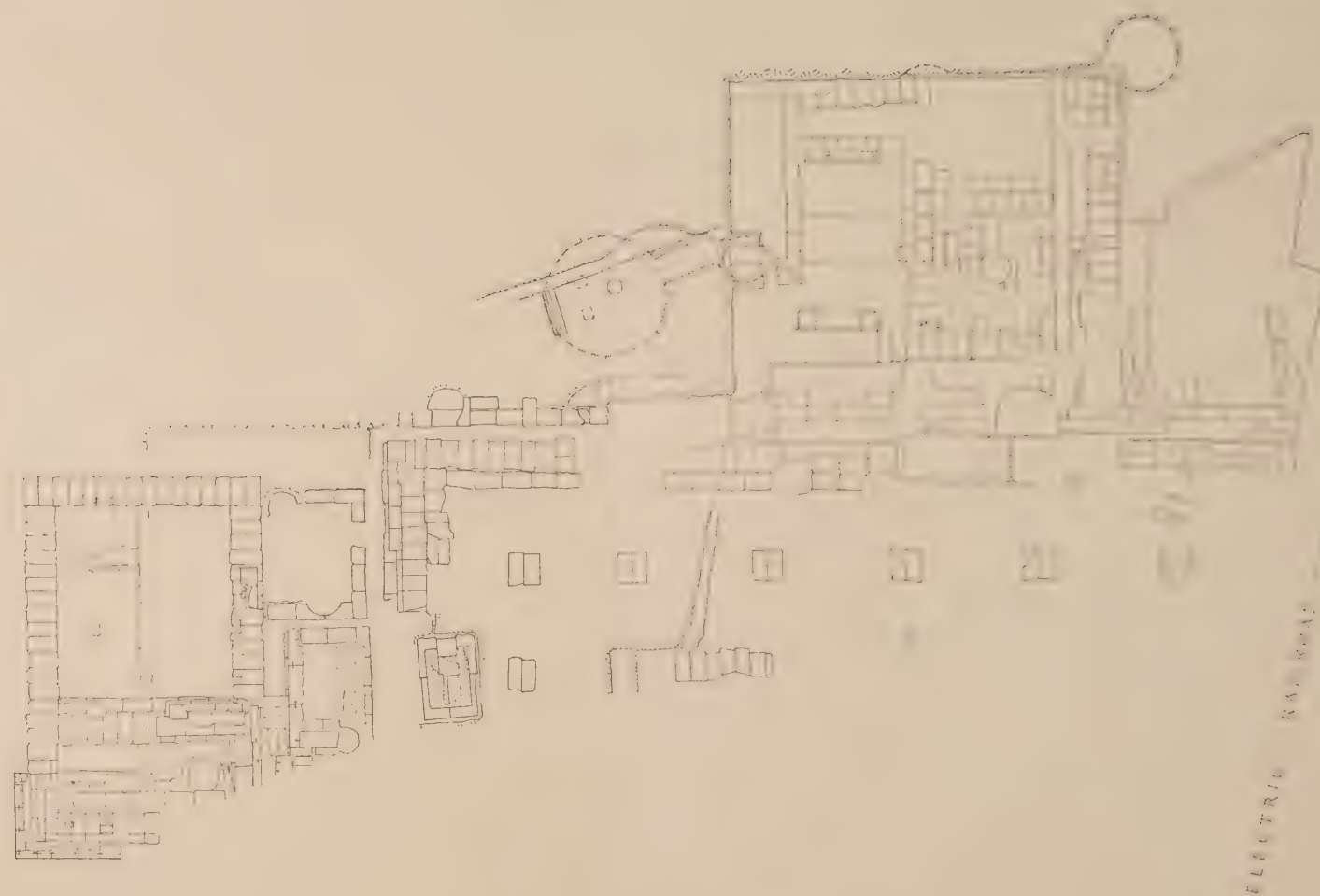
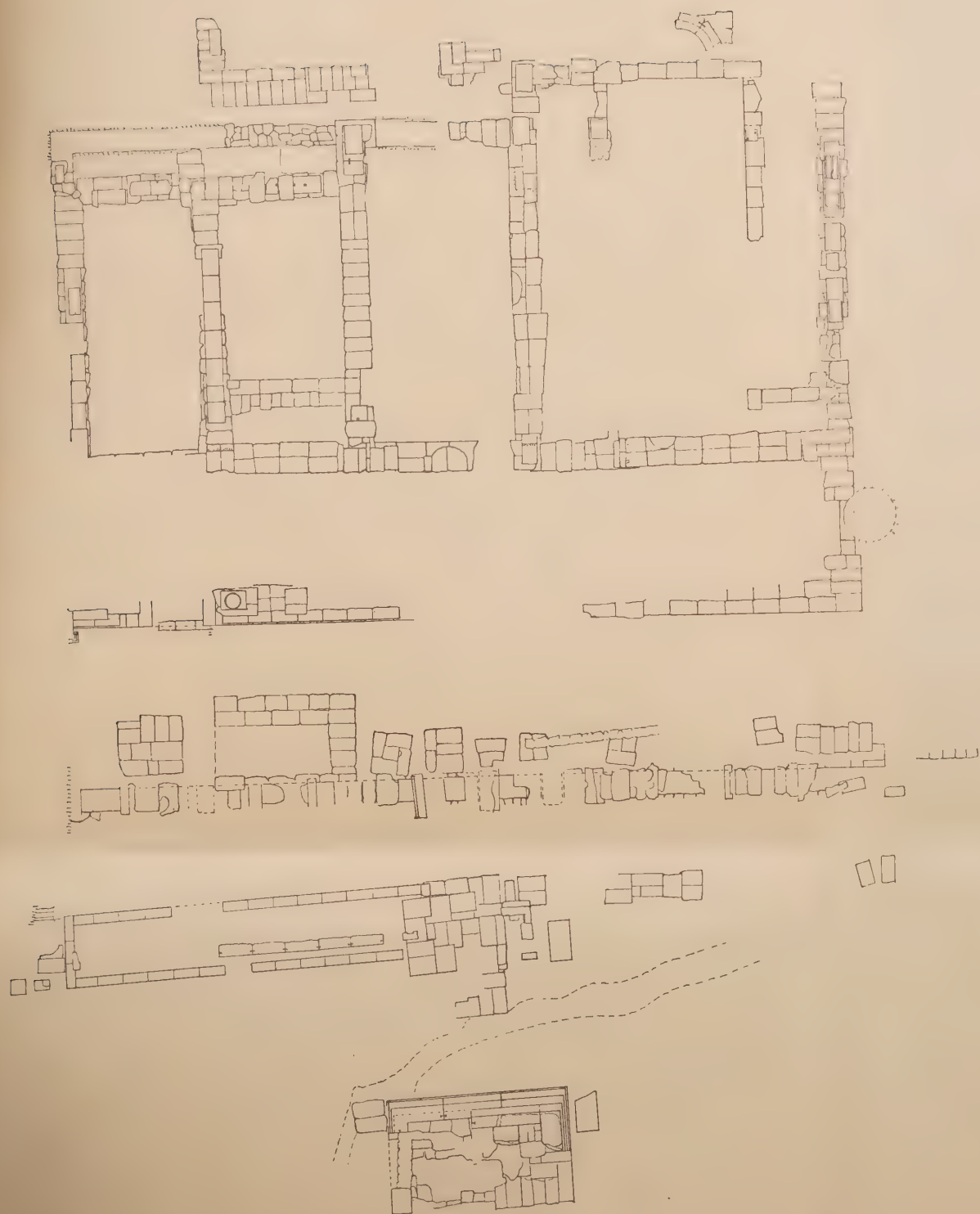
¹ *Delos. La Portique d'Antigone.* Cf. also the Great Stoa in the Sanctuary of Athena at Lindos in Rhodes.

construction of the building had begun from the southern end. Inasmuch as the foundation blocks were to be covered at the southern extremity of the stoa there was no reason for relaying them. As will be noted under the discussion of the construction, the marble steps remaining *in situ* seem to have been let into the foundation in a rather unusual manner for anything but an alteration or change of plan.



Fig. 4. Retaining Wall at South End of Royal Stoa

A large water basin (Fig. 3) measuring 1.80 m. \times 2.70 m. on the inside stood at one time immediately within the southern limit of the building. At present there are five large poros slabs on which the outlines of the basin may be traced by the presence of the hard waterproof stucco that originally lined it. At the west end of the basin the stucco turns up in such a way as to show the presence of a small pier against the centre of the end wall. This presumably was for a fountain. The floor of the tank is some 0.60 m. below the supposed floor level of the stoa, and if the tank remained open it would have been sunk in the floor. The line of the south stylobate cuts very close to the corner, and the orientation of the tank is not that of the stoa but is some degrees removed from it. It seems clear from the plan that the basin and the stoa were not contemporary,



AGORA EXCAVATIONS

SECTORS A & E

0 1 2 3 4 5 10 15 20 M



ELECTRIC RAIL ROAD

the former being the earlier, but it also appears that the basin was respected by the builders of the stoa, and that it remained in use.

Parallel with the rear wall of the stoa, and about a metre further west, runs a retaining wall of squared but not faced poros and conglomerate blocks (Fig. 4). The wall begins just north of the south corner of the stoa, and is the continuation of a lighter wall, built of uncoursed pieces of Acropolis limestone. The conglomerate retaining wall is preserved four courses high at the south end, and breaks down as it extends north. For a distance of twenty-five metres it consisted of courses of headers and double stretchers, but the alternation of these in succeeding courses was not observed, that is, the same course will contain headers and stretchers, all save the lowest course which consists solely of stretchers. Where the wall crosses the front of the Hellenistic building some of the blocks have been removed, five from the west face of the wall, and one from the east. The two remaining blocks on the west side of the wall seem to have been left for some purpose in connection with the Hellenistic building, and it may not be purely a coincidence that they would serve to give foundations for an opening made from the stoa into the southern chamber of the addition. The northern part of the retaining wall has been much overbuilt by later construction. A section, four blocks long and two high, remains where the wall passes beyond the line of the Hellenistic structure. The west face of the upper stones has been cut down leaving a projecting lip at the bottom, and the blocks retain traces of red stucco. A cutting in a block that forms a corner indicates that at some time a small, very poor building was made here.

CONSTRUCTION

At the south end of the building (Fig. 5) the poros foundation blocks, coursing with the marble step-euthynteria, were originally laid 1.25 m. wide. A rabbet 0.20 m. wide was then hacked in their upper front face, and an additional course of poros, 0.50 m. in width, was laid south of the main course so as to provide a foundation for the marble step. This rather haphazard form of construction is a little startling in a building of the date to which we must assign the Royal Stoa. The marble step was then laid, the first four blocks counting from the west being of blue Hymettus marble, and the fifth of white Pentelic. Again the discrepancy is disturbing. The steps were not dowelled to their foundation, nor clamped against it, but evidently it was thought that the double dowelling of the next marble course would afford sufficient bond. One dowel of the next course occurs in the marble step and is matched by another in the poros foundation. The faces of the steps were never finished. They still retain their lifting bosses, and all but one of the steps show merely a roughly picked protecting surface, with a slight smoothing around the edges done with the chisel. The remaining block, the third from the west, is better finished and shows a drafting on its lower edge, 0.055 m. high and 0.005 m. deep. The lower corners of several of the blocks are chipped in such a way as to make a satisfactory finish impossible, but inasmuch as it seems to have been the intention to cover the face of this course, it presumably did not matter. That this course

was never entirely covered, but that the ground level came up very nearly to the upper edge of the blocks, is shown by the wear that can be distinctly seen on the upper surface, and the rounding down of the actual front edge of the course. The fill which was densely packed against the face of the blocks contained pottery that could not date later than the second half of the fifth century B.C.



Fig. 5. View of Step at South End of Royal Stoa

The dowels were 0.01 m. by 0.06 m. in section. The upper surface of the marble was dressed with a toothed chisel, with three teeth to the centimetre. Only one clamp appears in this course. It holds the north side of the marble block at the corner to the poros behind. It is a double T clamp, 0.23 m. long, still in place, and well leaded in. Since the block which lay above this corner projected some fifteen centimetres to the west of the joint in the lower course, it was impossible to prevent the corner step block from slipping forward by the usual method of dowelling, and the clamp had to be used. The end of the fifth block where it is exposed shows well cut anathyrosis with a picked joint surface, 0.06 m. to 0.065 m. wide. A well marked setting line shows the continuation of the step to the east as far as the course below is preserved.

Rear Wall

Running north from the corner the foundations of the rear wall are made of soft poros blocks ranging from 0.48 m. to 0.84 m. wide and 1.17 m. to 1.34 m. long, laid as headers. They are well jointed, but neither their inner nor outer edges are lined up. No clamps were used. These blocks bear on their upper surfaces pairs of dowels, with a single pryhole between, for blocks which varied in length from 1.11 m. to 0.97 m.



Fig. 6. The Rear Wall of the Royal Stoa near the North End of the Area

This next course, to judge from the setting line, the position of the dowels, and the pryholes, must have been very nearly 0.80 m. in width, and was presumably either of marble, or of hard poros. The poros foundation at the south end was two courses deep, save at the extreme southwest point where a single course rests on the rock.

Opposite the third inner column, from the south, the construction changes and the headers give way to stretchers and backers. The general thickness of the wall is maintained. The distance between the joints is 1.20 m. to 1.30 m., and at each joint the stones are drafted, to the right of the joint. The field of each block is left quite rough. The setting line for the course above is set 0.08 m. behind the drafted edges of the blocks.

Behind the fifth interior column the foundation becomes deeper (Fig. 6). From two courses it changes to four, and later to five, and it is bedded on the friable rock that underlies this area. Two blocks which belong to the upper course of the foundation remain in place at the north end of the area. The level is maintained very accurately, there being a difference of less than one centimetre in the whole length. As might be expected, the underlying courses are laid alternately as headers and stretchers and show anathyrosis throughout. No clamps or dowels occur save in the top course. The close fitting joints of courses three and four below the top are distinguished by being roughly bevelled, generally on one side of the joint only, and the faces of the blocks have been picked roughly to a plane surface, not always perpendicular. The top of course III (counting down) shows a setting line less than five centimetres behind the average face of the blocks. To this line are set the headers of course II, the southern corner of whose blocks has been drafted so as to give a surface for alignment. The upper and lower edges of this course have been worked so as to produce an approximately straight line 0.02 m. outside of the setting line. This is not a drafting but rather a bevelled cut, done with a chisel.

The upper surface of course II has had the same treatment as the one below. Course I, the top course, has its blocks drafted on both sides of the joint, and a drafting as well along the lower edge. The upper edge was not drafted, nor even bevelled, if we may judge by the remaining two blocks. Their faces are picked off roughly, and are not plumb.

The deepening of the foundation to five courses occurs behind interior column number six. The bottom course here is laid with fairly tight joints, but it is not faced in any way. Course IV increases 0.06 m. at one point, making course III correspondingly shallower. The height of the courses is as follows:

Course I (top)	0.47 m.
Course II	0.47 m.
Course III	0.51 m. to 0.53 m. (0.46 m.)
Course IV	0.42 m. to 0.40 m. (0.47 m.)
Course V	0.45 m. ca.

The east side, (inside), of the foundation is quite rough, and the stones project unevenly.

It is evident from the dowels preserved in the top of Course I at the north end of the area that the joints of the socle, or of the succeeding course, were not placed with any regard to the top foundation course. At this point the length of two blocks seems to have been respectively 1.015 m. and 1.035 m., and a dowel falls across one of the joints in the foundation.

The stones that faced the wall seem on the whole to be of a slightly harder poros than those used as backers or levellers at the bottom of the foundation. The joints of the backers fall within a few centimetres of the stretchers', and the stretchers themselves are not of a uniform thickness but vary as much as ten centimetres.

The cut for the electric railroad to the Piraeus broke through the stoa, and many of its blocks found their way into the modern retaining wall built by the railroad company.

The Piers for the Inner Colonnade

These foundations are roughly 1.30 m. square, and are built up in courses, more or less in number depending on the depth of the rock. Each course consists of two blocks, twice as long as wide, set side by side, and the direction of the joints changes ninety degrees for each course. The only pier of which more than the top course shows has lost the final foundation course, but shows below that three courses respectively 0.45 m., 0.42 m., and 0.44 m. high. The blocks are dressed generally with a broad chisel, save where the upper surface of the last or highest course has been dressed with toothed chisels to receive the next course, probably a plinth for the column. A faintly discernible weather line, or rather pressure line, indicates that this plinth was about 1.15 m. square. In general the upper surface of the top course of the piers lies 0.05 m. above the upper surface of the back wall foundation. The spacing of the piers is not accurate, but they are large enough to allow the plinths to have been set accurately on them without the danger of projecting over at one side or the other. No trace of setting lines can be found and for the spacing of the interior columns we must work by averages. These piers were sunk in square holes cut for them down to bedrock, through the earlier fill, and especially through the layer of burning that seems to date from the Persian invasion.

The floor of the stoa was of packed earth, and has left few traces. The excavation revealed the fragments from the destruction of the building coming as low as the general level of the rock surface within the stoa. If we restore one additional step above the one preserved at the south end of the building we will have very nearly the level of the stoa floor. Two steps above the preserved steps bring the floor so high that there is no possible explanation for the lack of a well-defined stosis some twenty centimetres above the rock at its highest point.

ARCHITECTURAL FRAGMENTS

There remained in the area of the stoa after its destruction only a very few blocks, but many fragments and splinters of its marble architecture. Chief among these is one most important piece, a cornice block from an interior angle. It is of excellent profile, with a bedmold consisting of a cyma reversa, and a strongly accented drip below the edge of the corona. The bedmold is of the usual fifth century type (Fig. 7). It is interesting to observe that the fascia above the bedmold, and the intervias, which are on the same plane, recede slightly from the perpendicular, but the face of the corona seems to have been quite perpendicular. The upper side of the block shows two lifting holes, for tongs, about 0.305 m. apart. The back of the block has been cut into roughly to receive ceiling beams. All this part as well as the upper side of the block is roughly picked, and there is absolutely no indication that there was any higher construction save the roof tiles, which, judging from the absence of any marble



Fig. 7. Bedmold of
Cornice

fragments, were probably of terracotta. The most interesting feature in the way of decoration is the painting of the viae, which are adorned with palmettes of the flame



Fig. 8. Palmette from Via

type, issuing from scrolls which in turn spring from an acanthus leaf. The design, somewhat restored on the basis of other fragments found nearby and belonging to the same order, is illustrated in Fig. 8. These palmettes were scratched in outline on the marble and the back-ground was painted red. Whether the ornament itself was colored does not appear. It is clear that the design was applied before the block was hoisted into place, for the via on one side of the block has been worked down nearly a centimetre in order to make the block fit, and the anathyrosis has been recut. This entailed the slicing off of the sides of the scrolls. The band behind the viae was painted red, the mutules show traces of blue color, and the bedmold¹ is decorated with a leaf and tongue done in red, green, and presumably gold. Although no trace of the actual gilt remains, the marble where it was applied has been stained a blackish color, not to be confused with the traces left by black paint. The character of the stain is that which would be left by metal. The soffit of the bedmold where it projected slightly over the metopes was red. The guttae were probably also colored, for each gutta bears an incised circle on its lower face, some three millimetres from the edge. What color was applied here does not appear.

Three other cornice blocks were also found, although none of these retains the overhang of the cornice. One is preserved to its full length, 1.007 m. Another seems to have measured originally 1.008 m. The average width of the mutules was 0.401 m. and that of the viae 0.10 m. with very slight variations.

The cornice blocks were fastened by H clamps, and dowelled at one end to the frieze by dowels of the same dimension as those used for the steps, namely 0.06 m. by 0.01 m. in section. The clamps were 0.23 m. long, and correspond therefore in size with that used in the step course. Lifting holes similar to those on the corner

¹ The closest analogy to the profile of this molding is found in the Periclean buildings on the Acropolis.

of the top and of the wash above the overhang can be clearly seen. A rough cutting at the back of the block seems to be for a beam.

Frieze (Fig. 9)

Numerous but very small fragments of poros triglyphs, retaining a great deal of their bright blue coloring, were found among the marble chips dating from the destruction of

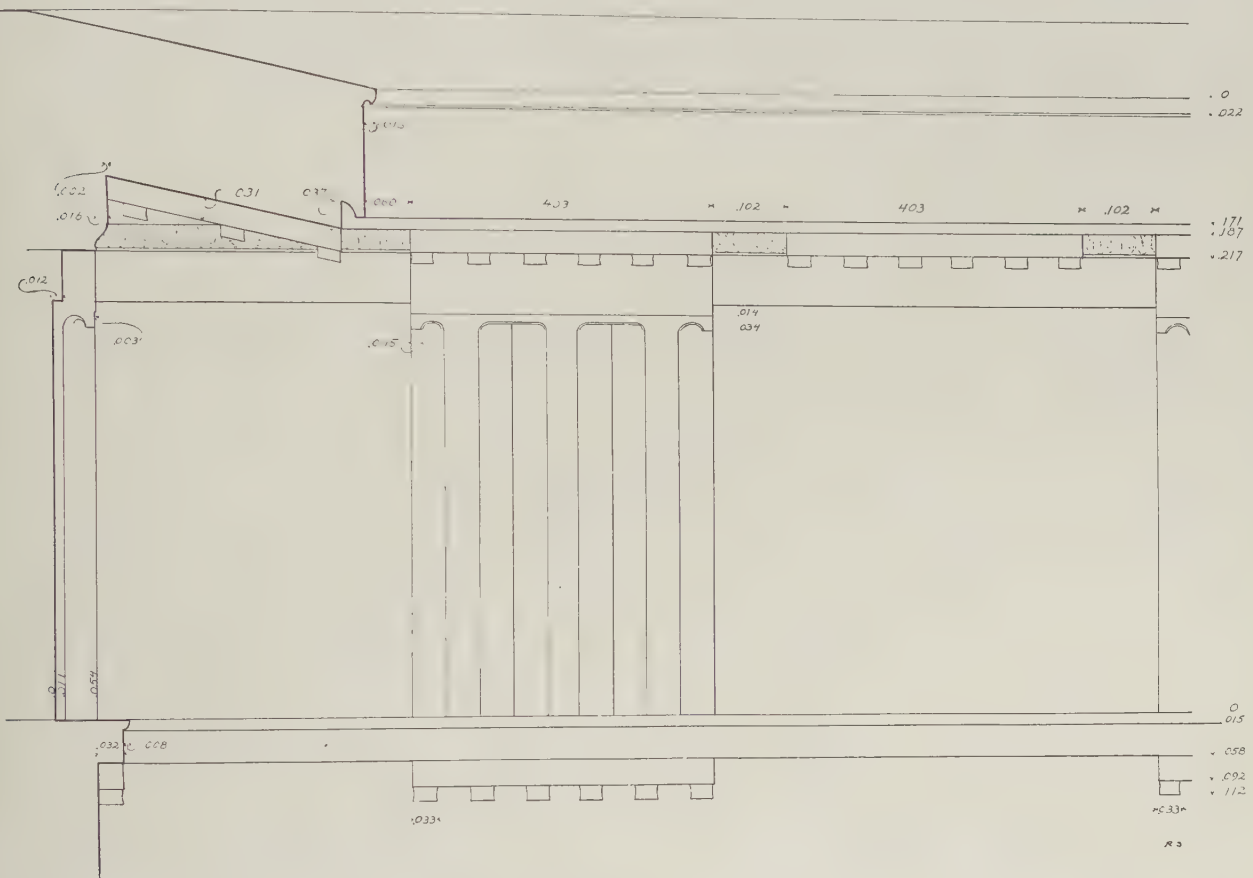


Fig. 9. Restoration of Entablature

the building. The stone is the typical granular Aiginetan poros. These can be restored to make a triglyph ca. 0.40 m. wide, which corresponds to the width of the mutule. The treatment of the corner bevel of the triglyphs is shown in the cut, as are the details of the cutting for the metope slabs. It is not possible at present to recover the height of the frieze.

The metopes may have been, and probably were, of marble. A small fragment was found in this area that may belong, but the actual top of the slab is not preserved, and it must be attributed only with reservations. Still, nothing else has come to light that will fill the requirements.

The Architrave

One fragment of a regula, having a length to the joint of 0.205 m., may safely be attributed to this stoa. If the joint fell in the centre, the regula would measure, accordingly, 0.41 m. in length. The height of the fillet of the taenia and the face of the regula are almost equal, 0.043 m. The guttae are a little less than half the regula, but the taenia is augmented with a delicate ovolo that brings its height to 0.058 m. It will be observed that the sides of the guttae sway in slightly, a peculiarity noticeable in the Periclean buildings on the Acropolis. The under sides of the guttae have an incised circle and a centre point as do those of the mutules. Traces of red paint appear on the face and under surface of the taenia. The workmanship of all the above fragments is of the best quality.

Again we are at a loss to complete the dimensions of the architrave, and must look to future excavations, and the lucky finding of some transported fragments to complete our restorations.

No surely recognisable fragment of the Doric capitals of the outer colonnade remains. Several chips of fluting from the columns were found, and if we restore the drums as having the usual twenty flutes the lower diameter of the columns would have measured from 0.75 m. to 0.80 m. Stylobate blocks are as rare as capitals.



Fig. 10. Fragment of Volute

Interior Order

It might be presumed that the interior order of this stoa was Ionic, and the finding of three chips of an Ionic capital and some bits of fluted column with flat arrisses confirms this supposition. The first piece (Fig. 10) is from the angle formed by the horizontal part of the volute band and the curve of the volute. Here is a delicately carved palmette springing from a calyx with a double rim. The height of the capital is not obtainable. The echinus, where a small corner shows, seems to have been plain and not carved. This is borne out by the second fragment (Fig. 11) that clearly comes from the echinus, and has painted on it a tongue-shaped leaf with a double border and a central spine. The leaf has a double border,

the inner one plain, and the outer painted so as to give the effect of the carved border of V section that appears in the carved examples elsewhere. The tongues are diamond-shaped, with a central spine, and have

a narrow exterior border, widening toward the bottom, of some other color, which was carried as well into the space left between the tongue and the outer border of the leaf. The under surface or bed of the cap is visible on this fragment, and has been worked down smoothly with a toothed chisel. The height of the echinus is not available.

A third fragment, which does not actually fit the first, but is the continuation of the joint between the horizontal and the curved volute band, seems to show a flare out which when taken with that noticeable on the first fragment indicates a corner capital. The only place that this could be used would be on the column of the interior order at the southwest corner of the building, i.e., where the interior colonnade turned to the east.

A piece of the upper part of a column with an astragal may go with this interior order, although the workmanship is apparently not quite as good. Still, on account of



Fig. 11. Fragment of Echinus of interior Order

the rather bad weathering of the piece it is difficult to tell. This gives us the information that the columns were fluted, at least in part, and that the astragal measured 0.02 m. and the fillet below it 0.013 m. in height. The upper diameter, exclusive of the fillet and astragal, would be about 0.60 m.

Several chips of unfluted column drums, the diameter of which may be about 0.60 m. or a little over, were also found, and these may with all probability be assigned to the interior order. The outer surface of the drum is worked very finely with a toothed chisel, save at the joint, where a finer finish has been applied. The bed, where one drum rested on another, is rubbed smooth. Inside of this resting surface, which is about 0.12 m. wide, the core of the drum shows again tooth chisel work.

No fragment of base for these columns has appeared, nor has any part of the plinth on which these bases may have rested been found.

Date of the Building

Certain evidence of the date of the stoa is lacking, but from the style of the fragments preserved we can place it on the one hand as not earlier than the Parthenon, and even from the analogy of the flame palmette to other examples, as late as the first part of the fourth century. The evidence from the fill against the step at the south, and from trial trenches cut through the filling thrown in to form the floor, points to the fifth century, and we may tentatively assign it to the latter half of the fifth century before Christ. A closer dating is of course to be desired, and may well be ascertained on the completion of the excavation. The building lasted through Roman times and apparently was entirely destroyed by the fifth century A.D.

II. THE HELLENISTIC BUILDING

Plate V

At the time when the stoa was constructed, the rock of the Theseum hill came forward to the line of the retaining wall for a length of some thirty or more metres north of the southern end of the structure. The addition of a rectangular building measuring some seventeen by twelve and a half metres necessitated quarrying the rock away and cutting through two earlier cisterns which lay in the area. Actually the back wall of the new building lies more than sixteen metres from the rear wall of the stoa, and there was a space of some three and a half metres between the earlier and the later buildings. How this space was treated is impossible to say. Probably it was unroofed, although no trace of provision for draining the open areas remains.

The foundations of the later building are of squared conglomerate blocks, sunk in a trench cut in the soft friable rock which underlies the area. In places where there is a harder vein of limestone, the foundation courses have not been sunk to so great a depth as is the case elsewhere. There were at least three courses of foundation until the euthynteria level of the new building was reached, which is higher than that of the stoa. The width of the foundations is about 1.30 m., and the height of the courses is generally 0.45 m. No part of the superstructure remains. The plan is bisected by an east-west wall, the eastern half of which rested on a foundation similar to the outer building foundations, some 1.30 m. broad, and the western part on a foundation only 0.85 m. wide, if we can judge by the single block that remains. On this foundation, one course high, rest three re-used blocks which show H clamps, excellent anathyrosis, and in one case a groove cut in the anathyrosis band in which lead was poured for water-proofing. It is probable from the dimensions of the blocks that they came from the back wall of the stoa when it was cut through to provide access to the new building. The blocks are of Aiginetan poros, identical with that used in the triglyphs of the stoa. To the south of these blocks, which formed a wall 0.70 m. thick, are four blocks, less care-

fully laid, with their tops nearly at the same level. They rest partly on earth, partly on the projection of the broad foundation. A cutting on one of them may indicate a step to a sill in a door between the two chambers. On the north of the median wall five blocks remain, also resting partly on the foundation and partly on dirt. These are much better joined, and are brought to a level surface some 0.06 m. below the top of the

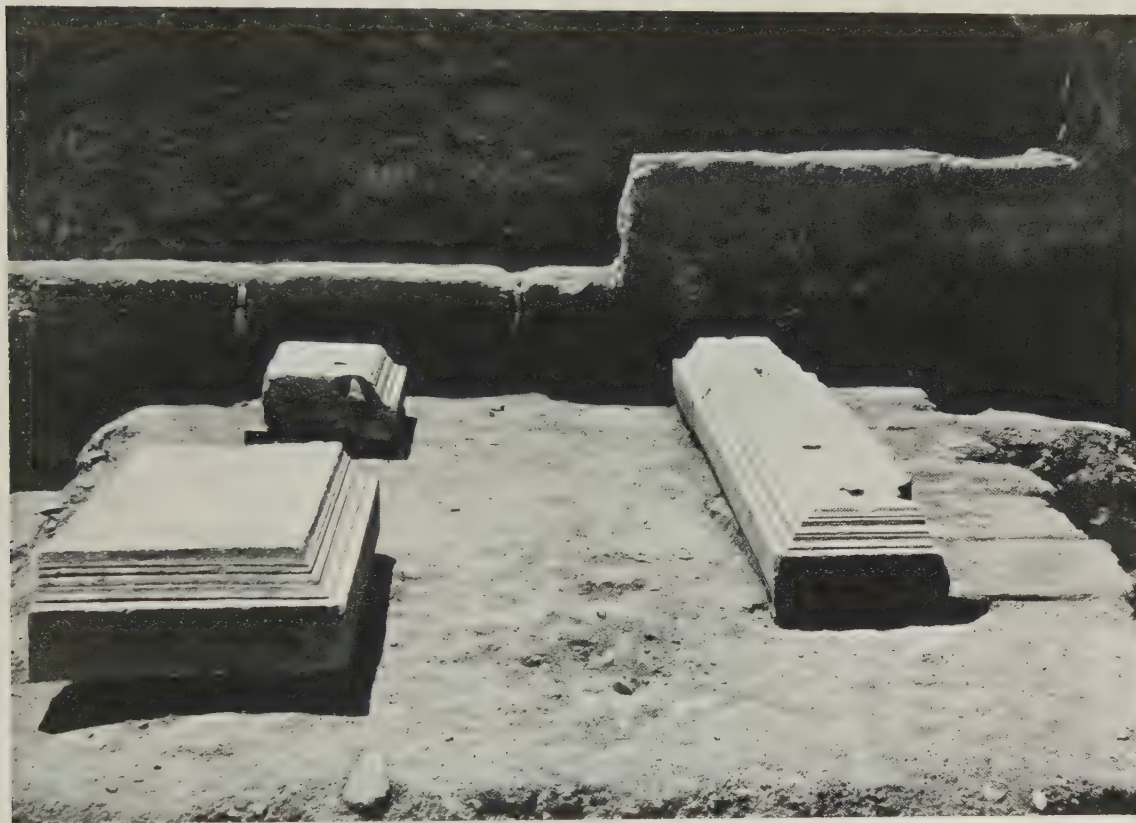


Fig. 12. Marble Base Blocks in Hellenistic Building

central course. Presumably these two flanking rows of blocks represent the foundations of seats that ran around, or at least partly around, the two chambers. From the eastern wall of the northern chamber two poros blocks 0.70 m. wide project one metre into the room. They course with the euthynteria of the building and are only 0.27 m. high. Like the blocks that flank the median wall they rest partly on the foundation and partly on earth or rock. From their position, spaced centrally on the end of the chamber and 2.15 m. apart, they may be supposed to be foundations for some objects set against the wall, though the nature of the objects is not revealed by any cutting on the upper surface of the stones. They could hardly have been very heavy, or the blocks would have had more of a foundation than they were given. Possibly a narrow gallery or balcony ran

across the end of the chamber and was supported by light construction. Cuttings in the rock for two similar foundations appear in the southern chamber.

The excavation revealed a heavy layer of marble chips extending over the whole area of the building save where the walls had been removed. Over this was laid at some time in the Roman period a floor of marble slabs, fifteen of which remain *in situ*. They are preserved only in the northern chamber. The southern chamber has at its east end two marble blocks that formed the base of some construction resembling an altar (Fig. 12). The northeast corner is preserved, and if we restore the length so as to place it symmetrically in the room, we get a dimension of 3.20 m. The depth is not ascertainable. The poros foundation which supported the construction has completely disappeared except for those blocks that remain *in situ*.

Final Period. Late walls

This structure can be dated in the third century before our era on the evidence of the sherds found in the well at the southeast corner and in the two cisterns. All of these were filled when the building was erected. Trial pits in other locations confirm this dating.

After the destruction of the building, presumably towards the end of the Roman period, two walls consisting partly of re-used materials were erected inside of the limits of the north and south boundaries of the building. A cross wall of rubble masonry was built across the northeast corner but there are no indications to show for what purpose this rebuilding served.

III. CISTERNS IN SECTION A

In clearing the slopes of the Kolonos Agoraios three double cisterns were found cut down into the living rock and intended for the storage of rain water. All three are alike in their general features, consisting of two bell-shaped chambers opening above in bottle-neck mouths and connected at their floor levels by underground passages. In the bottom of each chamber, directly below the mouth, there is a shallow circular depression towards which the floor slopes gently from all sides in an arrangement which was doubtless designed to facilitate the cleaning of the cistern. Walls and floors alike are covered by a single coat of stucco made principally from sand, fine gravel and lime. This plaster has survived in firm and well preserved condition save where the rock has broken away behind it.

One of these double cisterns lies in the angle between the back wall of the stoa and the south wall of its late annex. Of the two chambers the southern is the larger, having a maximum depth of 6.37 m. and a lower diameter of ca. 5.34 m. This chamber was too large to be safe because of the faulty nature of the rock, and, therefore, it was found necessary to strengthen the ceiling by a lintel carried on a round column and a square

pier, built up, in part, of re-used materials (Fig. 13). Notwithstanding these precautions, a great mass of the eastern wall, facing towards the stoa, has fallen in. A short surviving section of a *poros* water channel leading into the cistern's mouth from the direction of



Fig. 13. Cistern in Sector A. View of the Interior

the stoa suggests that the reservoir drew its water from the roof of that building. Its mouth opened in a room floored with pebble mosaic and enclosed by walls of *poros* masonry.

A rock-cut passage, some 2.44 m. long and 2.15 m. high, supported at its southern end by a single column, connected this chamber with its northern counterpart (Fig. 14). The latter is of the same height but of smaller diameter, measuring only 2.40 m. across the bottom. The greater part of its neck and mouth was cut away to make room for

the annex to the stoa. The lower part was then filled in with broken stone and earth to carry the southern foundation of the new building.

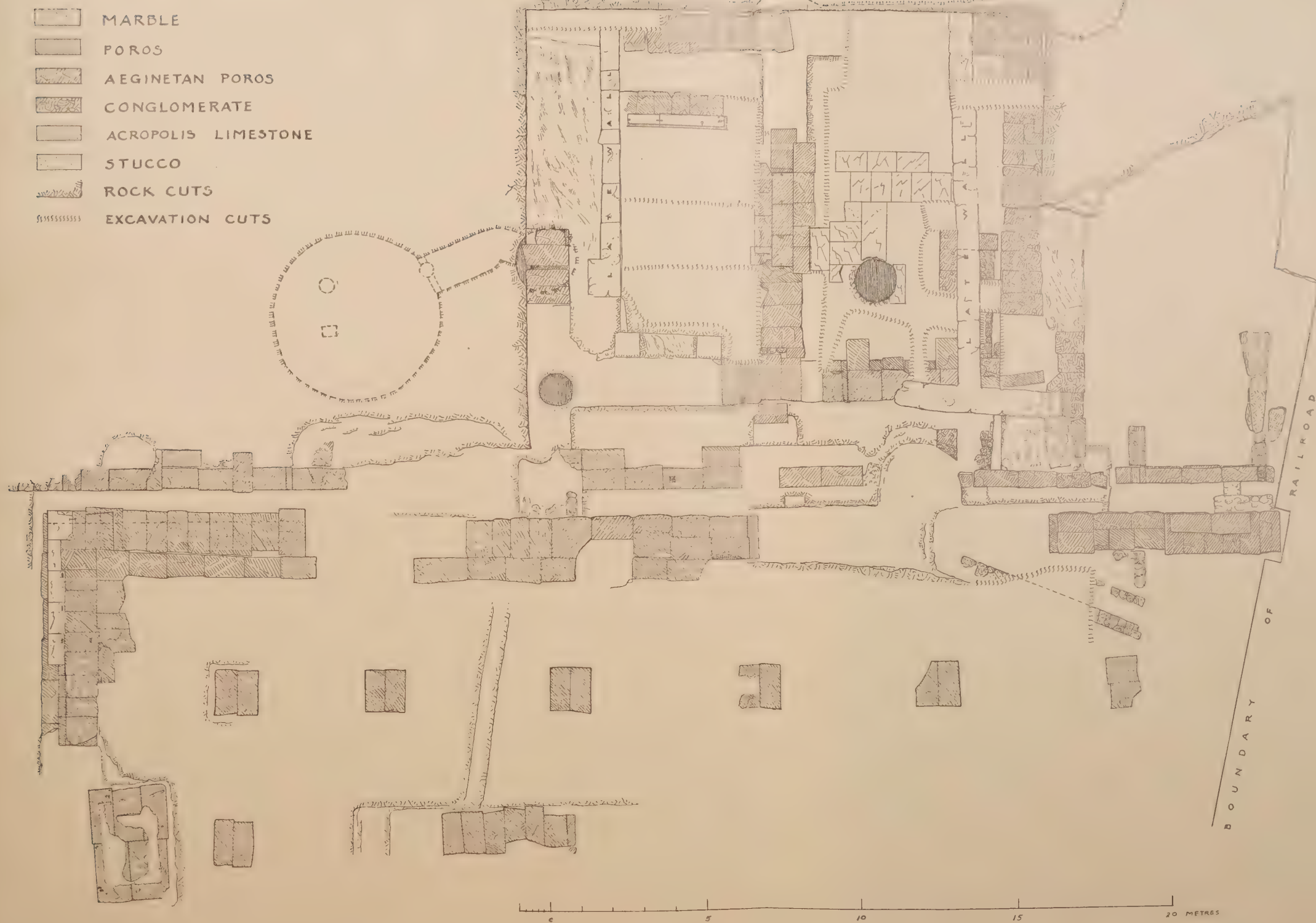
If one may judge from the pottery found in the filling overlying the bottoms of these two chambers, they must both have gone out of use as water reservoirs towards the close of the fourth century B.C. The lowest filling of the southern chamber was especially interesting. It consisted largely of ashes and charcoal, freely intermingled with miniature



Fig. 14. Cistern in Sector A. Entrance to Side Passage

unpainted kraters, kantharoi, and open bowls. In clearing out slightly more than one half of the filling more than five thousand of these vessels were secured. The combination of miniature vases in such numbers with traces of burning suggests that, after the chamber had ceased to be used for the storage of water, it became a refuse dump for some neighbouring sanctuary or altar. The northern chamber yielded no miniature vases or ashes and this circumstance suggests the possibility that the material was brought from the southwest, which is the direction in which the Theseum is located.

Another pair of similar chambers was so situated that the architect of the annex to the stoa, in cutting the western scarp for the accommodation of that building, sliced away the eastern half of the southern chamber and likewise of the underground channel which connected it with the northern. The latter basin was left almost intact just beyond



Plan of the Royal Stoa and of the Hellenistic Building

the northwest corner of the new building. The southern of the two chambers was very slender, having a lower diameter of only 1.35 m. compared with a depth of 5.30 m. Its lower 0.45 m. was filled in and the western foundation of the annex was carried unbroken across it. The connecting passage-way is ca. 7.70 m. long and 1.75 m. high. The northern chamber is larger, measuring 4.30 m. in depth and 3.30 m. in its lower diameter. A well was cut through its floor in later times and both well and cistern yielded Byzantine pottery. None of the few sherds found in the filling of the southern chamber need be later than the third century B.C.

In clearing the bedrock just to the west of the southwest corner of the annex to the stoa the mouth of another bell-shaped reservoir was found which has a depth of 3.17 m. and a lower diameter 2.70 m. A winding passage, 9.20 m. long and 1.20 m. high, led westward to another larger storage chamber (depth 5.68 m., lower diameter 4.20 m.). This room is an excellent specimen of rock-cutting and plastering and has survived in almost perfect condition. Overlying the floor of each of these chambers was a cone-shaped deposit (0.80–1.00 m. high in the middle) of viscous red earth in which was found a quantity of pottery of the third and second centuries B.C. The upper filling was of late Byzantine times.

The regularly double nature of these cisterns is probably due to the faulty nature of the rock in which it would be safer to cut two or more small chambers rather than one large cavity of equal capacity. This argument is borne out by the excavations of 1932 which have revealed in the still more treacherous bedrock at the northern foot of the Areopagos water storage systems comprising more numerous and smaller chambers connected by underground channels. That one mouth was reserved for the ingress and the other for the drawing of water is disproved by the fact that in the case of the southern chamber of the first cistern in Section A, the inlet in no way interfered with the draw mouth. Indeed, the separate mouths of these cisterns may well have opened in different properties.

The close similarity in plan and in stucco suggests that the three cisterns are not far apart in the date of their construction. We cannot, to be sure, fix that date with certainty. It is probable, however, that the first was cut shortly after the building of the stoa from which it drew its water. As we have seen, it appears to have gone out of use as a cistern towards the end of the fourth century B.C. Of the second cistern we can only say that it was rendered useless by the construction of the stoa annex, probably in the third century B.C. The third cistern was in use in the early Hellenistic period but scarcely later.¹

¹ The above paragraphs on the cisterns were written by Dr. Homer A. Thompson who was in charge of their excavation.



Fig. 15. View of Sector E from the North showing the East Side of the Zeus Stoa

IV. THE ZEUS STOA

The first campaign in 1931 revealed at the southwestern edge of Sector Epsilon, the presence of a colonnade or stoa running parallel with the general line of foundations forming the eastern limit of the buildings in the area excavated previously partly by Doerpfeld and in part by the Greek Archaeological Society¹ (Fig. 15). The second campaign followed this stoa to its northern limit. The southern end of the stoa appears at the extreme southern limit of the excavation, but until further exploration can be made very little can be said about it. The present report, therefore, will be confined to a discussion of the remains *in situ*, but their relation with the complex of buildings to the west must wait for explanation until the entire section can be uncovered.

No architectural fragments have come to light that determine whether the stoa was Ionic or Corinthian, although the former is more probably the case. One base of Pentelic marble remains *in situ* above a stylobate and two steps of Hymettus marble. These in turn are based on a euthynteria course of Piraeus stone, which towards the northern end of the stoa rests on a lower course of the same material. The subfoundation, increasing in depth to the north with the slope of the land, is of conglomerate, as are the filling courses behind euthynteria and steps.

Altogether, a length of nearly forty metres of this stoa has come to light. It is broken from time to time by late pits which were sunk through the structure and, save at the south end, has been stripped down to the subfoundations, or to the course lying below the euthynteria. Many of the blocks of the latter were turned up on end and built into a late wall that ran along the course of the colonnade. Some of these have since been restored to their places, as has also one block of the lower step which was found lying nearby.

Construction

A careful examination of the construction and technique of the building gives the following characteristics. The conglomerate blocks of the subfoundation were laid on rock or hard-pan, and are only roughly squared. Their upper surfaces are carefully levelled off to receive the euthynteria, which consists of blocks of Piraeus stone, laid as headers and carefully jointed with anathyrosis on the edges adjacent to the face of the stones, from which the square lifting bosses have not been removed. The euthynteria blocks are roughly 1.40 m. long and 0.65 m. wide. The height of the course is about 0.35 m., varying slightly with the inequality of the foundations. As has been already stated, there is a well finished course below the euthynteria which runs from the north end of the stoa to a point some 9.50 m. south. It consists of a series of stretchers varying from 1.35 m. to 1.41 m. in length, 0.65 m. to 0.70 m. in width, and 0.475 m. high. Backers of conglomerate lie behind these. This course also shows lifting bosses. The joints are bevelled on one edge with the toothed chisel, and the remainder of the surface is picked.

¹ W. Judeich, *Topographie von Athen*, 2nd Ed., p. 331.

The effect is not that of a carefully finished course, and it is doubtful whether it was ever meant to be seen. If it was, then the lowest marble step must, at the north end, have been raised too far above the ground level to be of any use (Fig. 16). Probably the finishing of this lower course was intended as a safeguard against a possible shift in the level of the Agora, or it may merely have provided for temporary visibility while



Fig. 16. North End of the Zeus Stoa

the finished level of the grade was being determined. In Roman times, at any rate, this course was visible at the north end of the stoa, where it returns for 2.10 m. to the west and then turns south against the end wall foundation. No setting line can be traced, but from the weathering it seems that the euthynteria was set back some 0.07 m. from the face of the course below it.

The face of the euthynteria course is carefully dressed with flush joints. No clamps or dowels are to be found until the first step is reached. This consisted of blocks of Hymettus marble, ranging from 1.21 m. to 1.30 m. long, and varying in depth. The backs are quite roughly cut and have the conglomerate backers fitted to them (Fig. 17). The height of the step was 0.275 m., the tread 0.329 m. to the setting line for the second

step. Each block was dowelled to the euthynteria with square dowels, and clamped at each end to the neighbouring step block with one, and to the conglomerate backer with two hook clamps, set in a slightly dovetailed cutting. Well defined anathyrosis, with a joint surface about 0.06 m. to 0.08 m. wide, occurs at the ends of each block. The face of the step, which is not drafted at the base, is finished in its lower half with a toothed



Fig. 17. Zeus Stoa. View of Base *in situ* from the West

chisel and is picked above. There is no projection of one surface beyond the other but the difference in working is clearly visible (Fig. 18).

Only four blocks of the second step remain, but the setting lines on the lower step show that their lengths ranged from 1.195 m. to 1.372 m. This step was only 0.279 m. high and had a tread of 0.335 m. to the setting line for the stylobate. The blocks were fastened to the lower step by two square dowels. Those at the southern end of each block come at the joint and were leaded from the end of the stone before the next block was set. The other dowels occur as much as 0.15 m. from the north end of the blocks and are equipped with pour channels, leaded from the face of the step. This rather unusual arrangement might suggest that the steps had been reset, as does also

the fact that some of the setting lines for the blocks have been struck twice. The clamps on the other hand show no clear trace of a second use, though they may belong to the resetting of the blocks. It seems hardly likely, however, that so large and important a colonnade could have been moved. A restoration would be unlikely to affect the lower part of the building, and there are no other signs of this having been



Fig. 18. Zeus Stoa. View of Base from the East

done. The finish of the blocks of the second step is in every way similar to that of the blocks of the first, save that there is a drafting along the lower edge, some 0.04 m. high and 0.005 m. deep, the upper edge of the drafting being very slightly bevelled. It may be noted here that the setting lines that governed the face of each succeeding course agree with the foremost face of the blocks and not with the drafting which was cut afterward.

A serious discrepancy occurs in the case of the only block of the stylobate that survives. Here, although the block is still dowelled in its place, the face of the block lies about one centimetre behind the setting line. It is probable that the protecting surface of the stylobate was worked back relatively further than was the case with the

second step. The length of the stylobate block is 1.29 m., the height 0.25 m., and the depth about 0.89 m. The back is only roughly squared, being concealed by the floor of the stoa, and only the upper edge is brought to a line. It shows some wear, as though the floor of the stoa, consisting of hard packed dirt, and not pavement, were, as might



Fig. 19. South End of Zeus Stoa

be expected, a trifle lower. The base was fastened to the stylobate with two dowels, presumably square. The ends of the pour channels may be seen. On the top of the base are two dowels, 0.06 m. by 0.05 m. and 0.04 m. deep, for securing the column. Fragments of fluted columns which agree in diameter with the base have been found, but no complete drum exists. Of the capitals and entablature there is no sure trace.

It is clear from an inspection of the plan that this colonnade served as an ornamental façade for the complex of chambers to the west. If we take the length (1.29 m.) of the remaining stylobate block for the interaxial spacing of the columns, we can restore a façade of sixteen columns. Whether the break caused by the base for a monument that seems to form the southern limit of the colonnade is actually the end of the structure does not yet appear (Fig. 19).



Fig. 20. View of Sector E from the South with the Fenced Area in the Centre

The date of the colonnade is likewise not fixed by any factual evidence save technique, and a close inspection seems to indicate that it may belong to the late third, but more probably to the early second century B.C. The setting of the step blocks and the clamps which hold them to their backers, as well as the deeply grooved setting lines, resemble the work on the stoa of Attalus, which is dated in the second century. The actual workmanship and stone-cutting are, however, superior.

V. THE "PERIPHGRAMA"

Midway between the Altar of the Twelve Gods (?) and the Pisistratid drain, that runs through the excavations, lies a construction the purpose of which is at the same time clear and yet most mystifying (Fig. 20). A foundation ca. 18.40 m. long and 3.68 m. wide with marks of post holes, and with the stumps of two marble posts still *in situ*, surrounds an area in which was a long narrow foundation, part of which is still preserved (Fig. 21). The blocks which form the foundation average 1.27 m. long by 0.47 m. wide. Their depth varies from 0.50 m. to 0.32 m., the deeper blocks being generally nearer the north end of the foundation, which is bedded in or on the hard fill that formed the level of the agora at this point. Only at the extreme north end of the structure did the blocks rest on masonry, and here it is only a question of their having been laid over part of an earlier foundation. The length of the blocks gives the spacing of the posts of the fence (1.27 m.), and originally there were fifteen posts on the sides and four on the ends, the corner posts being counted twice. Each post was fastened by two oblong dowels, and the upper surface of the foundation or sill was in a few cases dressed off slightly to accommodate the post, but generally the trace of the post on the masonry is very slight. The dowels measure 0.055 m. by 0.012 m. The posts, from the

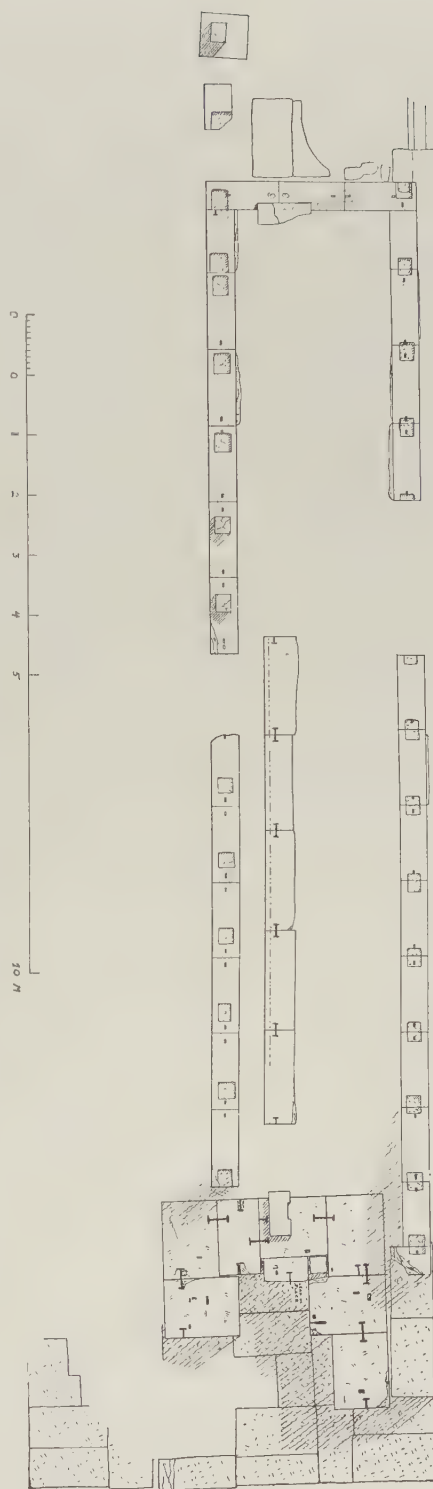


Fig. 21. Plan of "Periphrama"

traces on the foundation, were about 0.33 m. by 0.25 m. in section at the foot. The corner posts were presumably square and had the larger dimension. Both within and without the boundary of the fence the foundation is dressed down smooth for a portion of the total height of the blocks. On the outside this dressing does not maintain an even height but is deeper at the north end, extending down 0.28 m. from the top of the course. At the south end the depth is less, being only 0.18 m. The difference in level occurs about one third of the way from the north corner, on the west side.

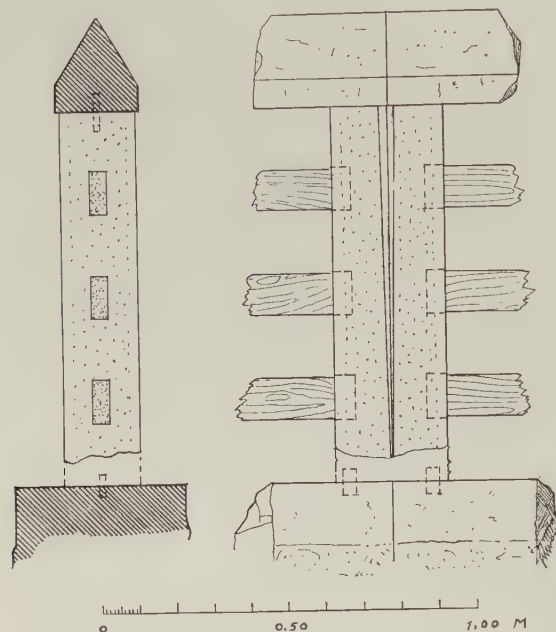


Fig. 22. Limestone Post and Capping Stone

On the east the break occurs nearer the north end and is almost exactly opposite the extension of the south side of the altar steps. On the inside of the circuit the dressing is only about 0.10 m. deep. At some period in the history of this foundation there was an alteration. The original posts were removed and were replaced by a new series with about the same spacing, although considerably more irregular. The new uprights were not dowelled to the base, but were set in holes cut in the foundation to a depth of 0.12 m. to 0.05 m. and were leaded in. Two stumps of these remain *in situ*. The enclosure was at the same time lengthened towards the south by two more uprights, making the total length about 21.00 m. The extra posts were set in separate blocks, one a re-used statue base with an inscription.

The southeast corner post of the new series still remains in place. It is of marble which is rather a poor quality of Pentelic, and it shows holes for wooden rails 0.09 m. by 0.03 m. On the east side there is evidence for two rails on the post that remains *in situ*, set about a foot apart, with the bottom rail a foot above the foundation. Neither the height nor the spacing of the rails was uniform. This can be seen on two other posts remaining *in situ*. One almost complete post, of Hymettus marble, has three rail holes preserved on each side.

A post lying near the foundation, made of limestone, shows very much better workmanship, and may belong to the earlier series, although its section does not correspond with that indicated on the foundation. Since the foot is broken away it is possible to restore a base of large enough section to fit the tooling on the foundation, but there is no certain evidence. A drawing of this post is given in Fig. 22. The workmanship is very good, the corners being finished smooth and the field of the four sides being picked. There is, however, no perceptible line of demarcation between the

surfaces. The rail holes are slightly larger than in the marble posts, and measure 0.047 m. by 0.115 m.

As will be noted, the face of the post shows a V-shaped cutting which divides the upright into two jambs. An iron dowel is still preserved and a part of the capping stone, quite possibly the one that fitted this actual post, has been found. It is triangular in section, with the lower edges of the triangle chamfered off so as to give a vertical fascia about 0.07 m. high. At the end, where a joint came over the centre of the upright, is a dowel cutting, and on one of the sloping faces, presumably the one that originally was turned towards the inside of the fence, is a hook clamp.¹

A capping stone, of similar section, but lacking any clamps or dowels, made of marble, was also found built into a mediaeval cistern not far off. Presumably it should be assigned to the marble series, but it is difficult to see how it could have been held in place.

What the structure was that this carefully built fence surrounded is not clear. Five limestone blocks remain *in situ* on the east side. They are held together by H clamps, and the face of each block has been dressed down smooth for a distance of about 0.16 m. from the top which lies about 0.10 m. higher than the top of the foundation for the fence. A well marked weather line, set back 0.09 m. from the face of the course, gives the front line of the course above, but what this course was is not known. Inasmuch as the five blocks are laid directly on dirt, or rather hard fill, they could not have been intended to carry any great weight. The space between the inner foundation or euthynteria, and the inner edge of the fence course, about 0.41 m., seems never to have had anything save an earth floor. Unfortunately both ends of the original inner basis have disappeared. Probably they were spaced as far from the ends of the fence as were the sides. When the fence was lengthened the inner basis seems to have been carried out to the south, and a limestone slab, nearly but not quite on line with the face of the inner euthynteria, as well as some foundations to the south of the original fence, strengthen this hypothesis. The fence foundation at the south also shows evidence of having been trimmed to accommodate another slab similar to the one *in situ*, and adjacent to it on the west. The cutting ends at a distance nearly enough the same distance from the west fence to make the addition centre on the two lines of fence.

It should be noted that the enclosure does not have parallel sides. The divergence is about 0.12 m., the south end being the narrower.

¹ A second fragment of a capping stone was discovered in the old excavations. It is similar in section to the piece above mentioned, but is actually a corner piece.

VI. THE ALTAR

Near the eastern limit of Sector Epsilon is a rectangular structure of which are preserved, on the west side, four marble steps, rising above a euthynteria of Piraeus stone (Fig. 23). Although the eastern half of the monument was badly quarried away in mediaeval times, the foundations and the southeast corner block of the euthynteria



Fig. 23. View of Altar from the Southwest

remain, and make it possible to ascertain the original size of the building. It was a rectangle measuring, on the bottom step, 8.76 m. by 5.43 m. The setting lines for the southeast corner step can be seen on the course below, and the restoration of the original dimensions is certain.

The foundations are of conglomerate, the blocks squared but not very closely matched (Figs. 24, 25). They rest on the friable native rock that underlies this portion of the Agora. The euthynteria course is 0.495 m. high, built of carefully jointed blocks which are fastened together with H clamps. The outer face of the course is worked

down smooth for a distance of about 0.17 m. from the upper edge, and a smooth band 0.05 m. to 0.10 m. wide, in the same plane as this upper facing, is found on either side of the vertical joints. The remainder of the face of each stone is left rough but does not project more than about five centimetres. Only the outer blocks of this course were of Piraeus stone. The remainder, or filling blocks of the course, were of conglomerate or poros and so far as can be seen only the outer ring of blocks was clamped together.



Fig. 24. View of Altar from the Northeast

The steps, four in number, are found in two courses of marble, each the height of two steps (Figs. 26, 27). The treads, beginning at the bottom, average respectively 0.327 m., 0.3275 m., and 0.325 m. in width. The top step has no definite width, but formed a platform at the top of the structure. It will be noted that the treads measure practically one Attic foot. At either end of the building, to north and south, the steps are returned as a narrow ledge only 0.077 m. wide for the first two steps and even less (0.05 m.) for the third. A shallow drafting 0.042 m. high runs around the base of each step. The position of the setting line which is visible on the top of the first course shows that the steps were set in place before the drafting was cut. A very faint second setting line, slightly inside of the first, has a significance that will appear below. The height of the

steps varies from 0.288 m., for the top step at the west side to 0.32 m. for the bottom step. Inasmuch as the top step at the north end of the building, where it is least worn, gives a height of 0.30 m., this may be taken for very nearly the height of the step. The fortunate preservation of a fragment of one of the eastern corners of the upper pair of steps gives the valuable information that the narrow ledges were continued around the east side of the monument and that consequently the only approach was from the west. Given the dimensions of the structure, or rather of the platform which was left at the top of the steps, 8.35 m. by 4.247 m., and the fact that the approach lies on the west, it seems clear that the building was an altar.¹

At the south end of the west side the lower marble course is exposed and the clamps and dowels are clearly visible. The clamps are of the H type, from 0.34 m. to 0.36 m. long. The dowels are of the thin oblong type and measure about 0.02 m. by 0.09 m. in section. The blocks were dowelled in one end only. The dowel near the southwest

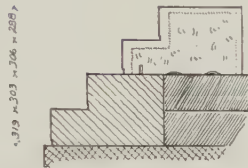


Fig. 26. Section of Steps

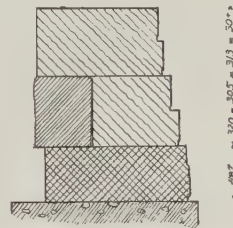


Fig. 27. Section of North End

corner is provided with a narrow rectangular pour channel showing that the block which it fastened was the last one of its course to be laid. Hence it follows, if we may restore only two blocks along the south face of the upper course, that the southeast block was the first to be put in place.

Careful inspection of the dowel holes reveals the fact that the dowels seem to have been chiselled out with some care. A deep groove was cut on one side, or all around the dowel, which was then removed (Fig. 28). This fact might pass unnoticed were it not for the fact that the clamps show an entirely different state of affairs. Here the marble has been recklessly hacked away. Further inspection makes the removal of the metal of the dowel at the south end of the preserved second marble course a bit of magic, unless the block had been raised. Otherwise it would have been impossible to free the dowel without causing far more damage to the marble than is the case. It seems senseless to raise a very large block, as this was, for the purpose of removing a small piece of bronze, and then returning it to its place, or very nearly to its place, for there is a slight shift of the block to the west. The pry holes in the

¹ The great altar of Demeter at Pergamon has about the same dimensions, length 8.60 m., breadth 4.50 m. W. Doerpfeld, *Ath. Mitt.* XXXV, 1910, pp. 374 ff. Pauly-Wissowa, *s.v.* altar, I², p. 1655.

eastern edge of the block of the lower marble course seem rather strange, and there is no corresponding mark in the poros backer adjacent to one of these holes. A patch at the northwest corner of the lower step has two sets of pin holes for fastening it in place. Apparently the repair fell out once and was replaced. One is inclined to think that some alteration was made to the structure, or even that it was moved in antiquity from some other position.



Fig. 28. Detail of Holes for Clamps and Dowels

Further inspection confirms this hypothesis. There are a number of spalls in the marble along the lower edge of the bottom step, particularly along the north side. Inasmuch as the north and south ends of the step are absolutely level, with a rise of one centimetre at the centre, and since the second step is almost absolutely level for its whole length, one can hardly account for these breaks by settling. They seem rather to be the result of damage caused by prying up the block. The confirming piece of evidence is that, on the north side, the first joint from the corner of the lower marble course shows that the upper surface of the course was worked off rather roughly so as to make an even bed for the block above, but the ledge which corresponds to the first step is not worked off and here the upper surfaces have a difference in level of over a millimetre.

This evidence for the removal and re-erection of the monument allows us to explain the presence of the letter *alpha* with a broken bar which occurs on the eastern face of the southwest corner block. It is not well cut, but is, rather, scratched on to the stone. The workmanship of the step blocks and all the technical indications point to a date much earlier than the letter would allow, and it is necessary to have the monument disassembled in order to have the letter placed where it is. There is, moreover, on the south end of the block that carries the third and fourth steps a sign, *gamma*, standing on a *pi*.¹ It seems then that when the building was re-erected the southwest corner

¹ These letters would have served for reassembling the structure as did the letters on the frieze surmounting the Beulé gate. Compare also the reconstruction of the altar in front of the temple at Delphi. *Fouilles de Delphes* II, pp. 124 ff.

blocks were the first to be laid, and that the work proceeded in a clockwise direction instead of the counter-clockwise direction that was the case in the former laying. The dowels were never replaced. The letters A N were scratched on the top of the east side of the long block of the second course.

The top northwest corner block bears on its upper surface two dowel holes. They are of different types, one the long narrow variety, the other square. Both have pour channels, but the oblong dowel has a much better cut channel than its neighbour.

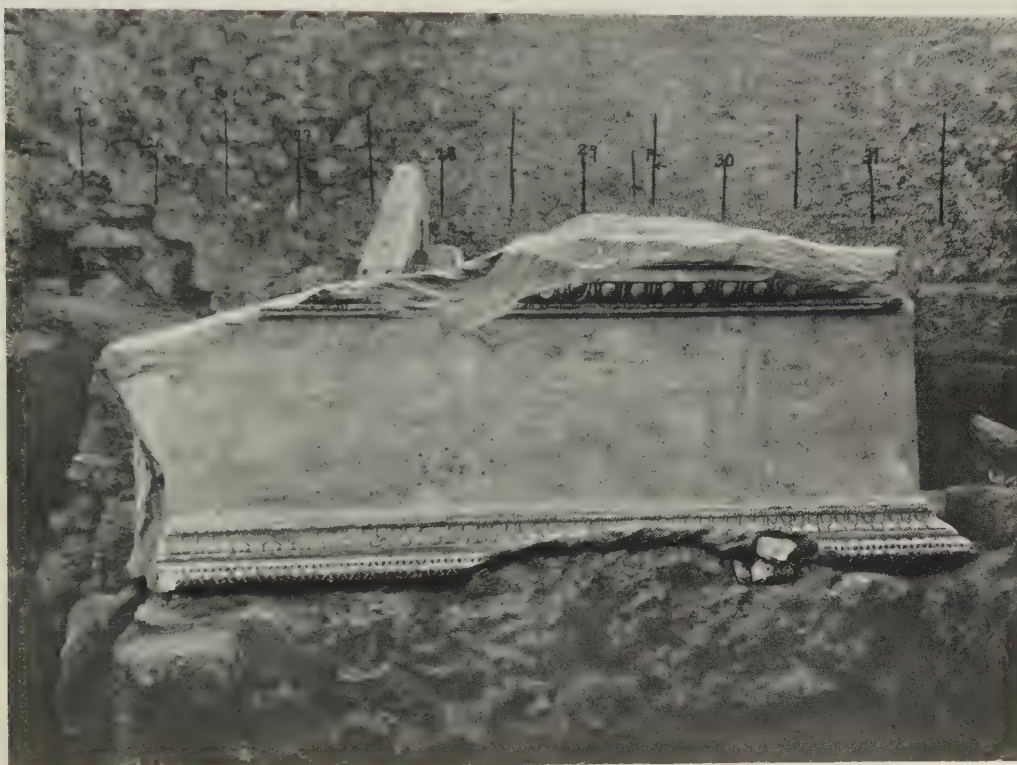


Fig. 29. Altar. Detail of Marble Orthostate

A pryhole also appears, in a place where it must have been visible after the block for which it served had been laid. Presumably it is to be associated with the square dowel, which is the later type. Surrounding these cuttings is a slightly roughened surface which has no well defined limits and does not aid materially in replacing or restoring what came above. The one block of the platform proper, partly cut away in mediaeval times, has a small square dowel, but the cutting is so shallow that it is hard to imagine that it ever served for a stone above.

Just east of the remains of the monument there came to light a very large marble podium block with richly carved moldings at the top and bottom (Fig. 29). It is not

preserved to its full length. The present length is about 2.90 m. As will be seen from the drawing (Fig. 30), which gives the principal dimensions, it was a corner piece. The

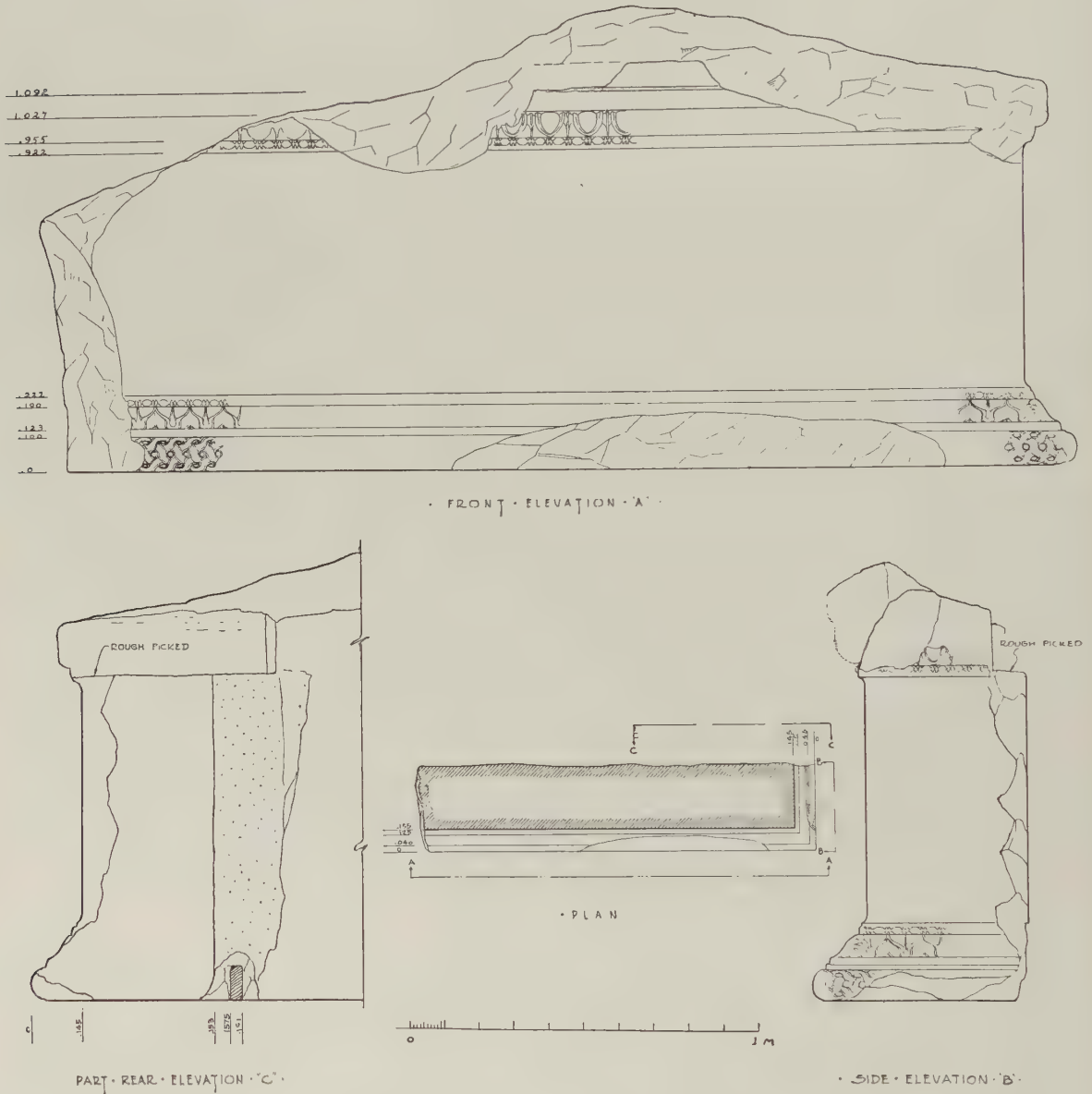


Fig. 30. Drawing of Orthostate from Altar

base consists of a torus carved with guilloche, surmounted by a cyma with a Lesbian leaf, which in turn is finished off with a delicate bead and reel. The cap carries an ovolo with egg and tongue above a bead and reel. Above the ovolo is a broad fascia

and above that the block is crowned with an inverted cavetto. Although from the mass of marble that extends some fifteen centimetres higher it is plain that there was some further treatment, it is impossible to say what form it took. On the narrow end of the block the ornament returned, but the upper moldings were partly on a separate piece and fitted in. A large dowel hole is preserved near the corner. The back is very roughly finished but anathyrosis for the adjacent block is quite apparent.

The quality of the decoration seems at first glance very good. Closer inspection shows that there is considerable irregularity in the spacing of the ornament, and the finish, even allowing for the considerable wear on the lower moldings, is not of the finest. The eggs do not reach down so far on the ovolo as in the Erechtheum work, and the tongues are not so finely cut. The execution of the guilloche ornament is likewise not as carefully done, and the whole effect is that of a copy of the ornamental work of an earlier period.

From the position which the block now occupies near the southeast corner of the foundation, and from the height at which it stands, which is approximately level with the top of the platform, it seems that in all probability it must be associated with the altar. Of the four corners from which it could have come, the northwest corner seems to be ruled out on account of the impossibility of fitting the dowel holes together. The fact that the lower moldings have been badly worn would indicate that originally the block faced the west, and stood at the southwest corner of the platform, where there was a broad landing for those making offerings.¹

With relatively so little material to work from, the simplest restoration is the safest until further evidence comes to light. It seems reasonable, therefore, to suggest that on the platform stood a rectangular altar, some 2.80 m. by 7.50 m., with a space around it on three sides about 0.42 m. wide, and on the front a broader platform measuring about a metre in width. A more elaborate restoration giving the altar wings that flanked additional steps on the west side is possible, but in the face of lack of evidence may be thought rather too hypothetical at the present time.² Whether anything stood on the altar itself, whether there were volute-like horns at the corners, and to whom the altar was actually dedicated, are questions that can at present not be answered.

The date of the structure, if we may judge from technique, should fall near the end of the fifth century, but this applies only to the steps. It seems more reasonable to place the first construction in the latter part of the fourth century before Christ, and to assign to the Hellenistic period, when there seems to have been a considerable rearrangement of this part of the Agora, the removal of the altar and its re-erection in another location, probably not far from where it originally stood. Trial pits around the

¹ Cf. Altar of Demeter at Pergamon. W. Doerpfeld, *Ath. Mitt.* XXXV, 1910, pp. 374 ff.

² The height of the orthostate, ca. 1.30 m., is perhaps an argument for assuming that it was not part of the altar proper, but came from a podium with steps on which the altar itself was supported.

foundations have not yielded conclusive evidence, and in any case they might be expected to show only the date of the reconstruction.

In mediaeval times much or most of the altar itself was removed, but a wall standing on top of the upper west step preserved this portion. From the position that it now occupies it is probable that the orthostate block remained *in situ* on the southwest corner while the eastern part of the structure was torn out. Later on, the level having again filled up, it was swung out of its place into that where it now stands.

RICHARD STILLWELL

THE INSCRIPTIONS

During the excavations conducted by the American School of Classical Studies in the Athenian Agora in 1931 there were discovered eighty-one Greek inscriptions. This number includes all the fragments, however small, and must be somewhat reduced to represent correctly the inscriptions which may be expected to yield evidence of historical importance. Nevertheless, the extent of the epigraphical discoveries in the first year seems particularly gratifying. It has always been known that inscriptions would be among the principal discoveries made in the Agora, though the greater number of documents and the more important individual records are probably to be expected in the neighborhood of the ancient Council House, to which the excavation has not yet been extended. The fact that the less promising section of the area to be excavated yielded eighty-one fragments in the first campaign is a good omen for the future success of the excavations in epigraphical discovery.

The inscriptions range in date principally from the sixth century B.C. (one small piece of a dedication) to the second century A.D. (cf. No. 10 below). There are also later dedications and sepulchral monuments. Of more immediate importance to the historian is the fact that inscriptions are being discovered from precisely those categories which will contribute most to the determination of Hellenistic chronology. The inscriptions honoring the epheboi, the taxiarchs, and certain other official boards, were usually placed in the Agora. From such documents we often learn the relative sequence in time of the archons whose names they record. The present interest in problems of Hellenistic chronology and history, which has been revived and increased by Dinsmoor's great work on the Archons of Athens, will certainly be maintained by the discoveries in the Agora. It is not too much to hope that a definitive solution will be given to many problems which now prevent an accurate record of the history of Hellenistic Athens.

The director of the excavations, Dr. T. Leslie Shear, placed at my disposal during the summer of 1931 squeezes and photographs of some of the more important documents found in the first campaign. Some of these require further study in Athens, but in so far as preliminary publication can be made it seems advisable to make known the new texts as soon as possible. The documents which can be thus published are given in the following pages.

1. A statue base of Pentelic marble, found in Section E in a late wall 5/B-I. June 6, 1931.
Height, 0.285 m.; bottom diam., 0.62 m.
Height of letters, 0.012 m.
Inv. No. 153 I 14.

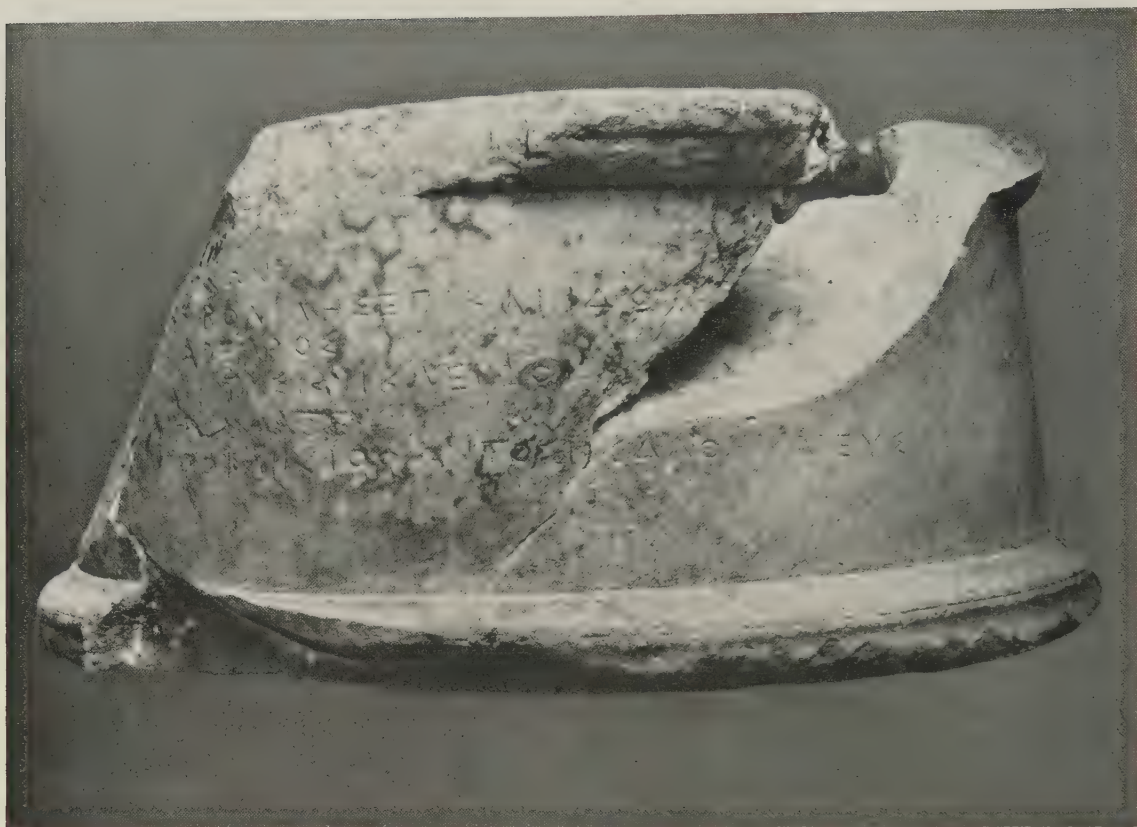


Fig. 1

[ἔρ]χων

Εὐβουλίδης Ἐπικλείδο [Ἐλευσίνιος]

πάρεδρος

Λίχνης Ἐπικλείδο Ἐλε[υσίνιος]

5

γραμματεὺς

Πρόκλῃς Ἰοφῶντος Κυδαθηναεὺς

Euboulides was eponymous archon in 394/3. It is already known that he belonged to the Eleusinian deme (*P.A.* 5325), but this inscription gives the father's name as Epikleides. The paredros was also a son of Epikleides, and also from Eleusis, evidently a brother of Euboulides. Since Aristotle (*Αθ. Πολ.*, 56, 1) informs us that in his day each of the three principal archons had two paredroi (cf. also *I.G.* II², 1696), it is interesting to find the name of only one inscribed on this base from the early fourth century. The paredros and secretary are otherwise unknown.

2. A statue base of Hymettian marble, found in Section E, house 20.

Length, 0.50 m.; width, 0.48 m.; height, 0.20 m.

Height of letters, 0.012 to 0.015 m.

Inv. No. 147 I 8.

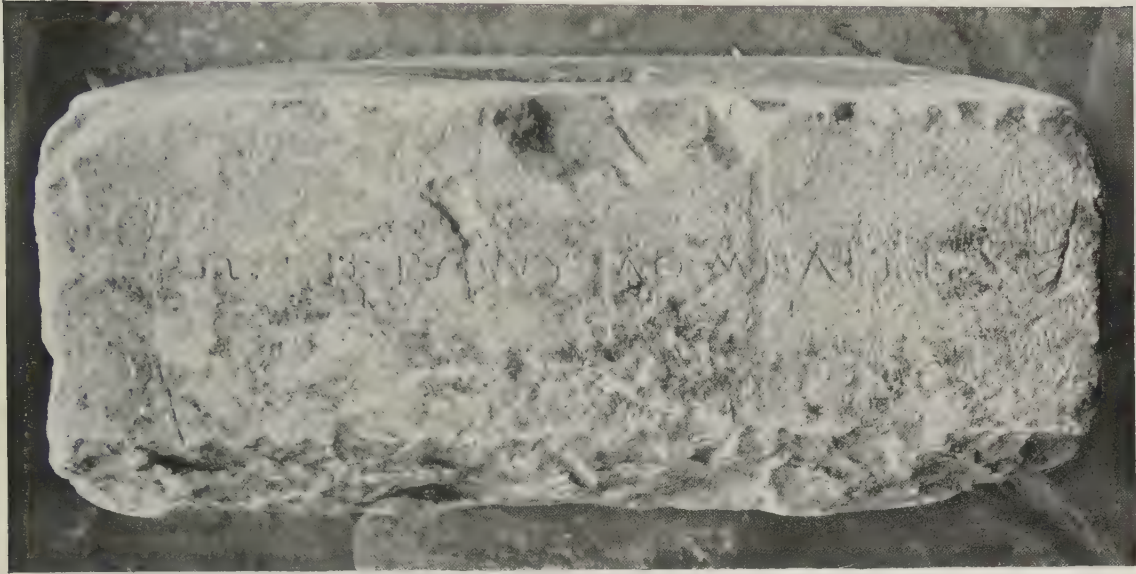


Fig. 2

Ἱέρων Ἱερωνύμο Μελιτιεύς

This particular Hieron is already known from a sepulchral monument (*I. G.* II, 3804b; *P. A.* 7524a), but the present inscription gives the additional name of his deme. The grave stele exhibits the form *Ἱερωνύμου* for the patronymic and should be dated in the second half of the fourth century. The inscription here, with patronymic *Ἱερωνύμο*, should be dated before the middle of the fourth century.

3. Three fragments of Pentelic marble, which were found near together in Section E in a late wall 5/I–B.

Fragment *a*: Height, 0.83 m.; width, 0.40 m.; thickness, 0.305 m. Inv. No. 157 I 18. Left edge preserved.

Fragment *b*: Height, 0.42 m.; width, 0.17 m.; thickness, 0.15 m. Inv. No. 156 I 17. Broken on all sides.

Fragment *c*: Height, 0.22 m.; width, 0.313 m.; thickness, 0.207 m. Inv. No. 155 I 16. Top and right edge preserved.

Height of letters in line 1, 0.022 m.; in lines 3–50, 0.012 m.; in lines 52–56, 0.009 m.

ΕΡΕΧΘΙΔΟΣ

ΟΙΝΗΙΔΟΣ

ΑΧΑΡΝΕΥ
ΑΧΑΡΝΕΥΣ
ΑΧΑΡΝΕΥΣ
ΓΑΛΑΚΤΙ
ΣΤΕΡΙΟΦΥΛΑΣΙΟΣ
ΝΤΙΚΡΑΤΟΣΦΥΛΑΣΙΟΣ
ΕΥΔΗΜΟΦΥΛΑΣΙΟΣ
ΔΗΜΟΦΥΛΑΣΙΟΣ
ΝΟΣΦΥΛΑΣΙΟΣ

ΑΙΓΗΙΔΟΣ

ΚΕΚΡΟΡΙΔΟΣ

ΠΑΝΔΙΟΝΙΔΟΣ

ΠΑΙΔΑΝΙΕΥΣ
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ΑΕΝΟΣΑΥΡΗΝΟΣΙΟΣ
ΔΟΑΓΓΕΛΗΘΕΝ
ΟΚΥΘΗΡΙΟΣ

ΕΥΦΟΡ
ΣΩΦΙΛΑΝΤΙΔΟΣ
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ΑΝΔΡΟ
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ΑΝΤΙΟΧΙΔΟΣ

ΛΕΟΝΤΙΔΟΣ

ΤΟΠΑΙΟΝΙΔΗΣ
ΠΡΟΝΟΣΡΕΑΡΡΙΟΣ

ΑΛΛΑ
ΓΟΝ
ΚΟΝ

ΣΕΟΚΑΗΣΑΕΥΚΙΟΣΟΝΙΕΥΣ
ΦΑΝΟΜΑΧΟΣΔΙΟΝΥΣΙΟΣΟΝΙΕΥΣ
ΑΚΑΜΑΝΤΙΔΟΣ

ΟΣΔΙΟΔΩΡΟ
ΑΤΗΣΤΙΜΟ

ΤΟΥ
ΘΕΙ
Η

ΟΝΤΙ
ΚΗΤ

Fig. 3

	[- - - - -] η ν	
	[- - - - -] vacat	
	[Ἐρεχθίδος]	[Ὀινιίδος]
	- - - - -	- - - - - Ἀχαρνέες
5	- - - - -	[- - - - - Ἀ]χαρνέες
	- - - - -	[- - - - -] ο Ἀχαρνέες
	- - - - -	[- - - - - Ι]λαγχίππο Λακιάδης
	- - - - -	[- - - - -] ος Ἰερίο Φυλάσιος
	- - - - -	[- - - - - Ἀ]ντικράτιος Φυλάσιος
10	- - - - -	[- - - - -] Εὐδῆμο Φυλάσιος
	- - - - -	[- - - - -] δῆμο Φυλάσιος
	- - - - -	[- - - - -] νος Φυλάσι[ος]
	- - - - -	- - - - -
	lacuna	
15	[Ἀιγυίδος]	- - - - -
	- - - - -	- - - - -
	- - - - -	[Κεχροπίδος]
	lacuna	
	- - - - -	[. . .] οκλ[- - - - -]
20	- - - - -	Σμικυ[- - - - -]
	- - - - -	Εὐφορ[- - - - -]
	- - - - -	Σώφιλο[ς - - - - -]
	- - - - -	Ἰπποθω[ντίδος]
	- - - - -	Ἀρχίνο[ς - - - - -]
25	[- - - - -] ος	Ὀινιί[δης - - - - -]
	[- - - - -] τιο[ς]	Ἀλαντ[ίδος]
	[Πανδιονίδος]	Ἀνδρο[- - - - -]
	[- - - - - Παιαν]ι[ε]ύ[ς]	Εὐκλε[- - - - -]
	[- - - - - Π]αιαν[ιεύ]ς	[.]ι[.]ο[- - - - -]
30	[- - - - -]ωνίδο Πρ[οβα]λίστιος	[- - - - -]
	[- - - - -]μέρος Μ[υρρι]νόσιος	Ἀ[ντιοχίδος]
	[- - - - -]δο Ἀγγ[ελῆθ]εν	Α[- - - - -]
	[- - - - -]ο Κυθήρ[ιος]	Αν[- - - - -]
	[Λεοντίδος]	Ἀ[- - - - -]
35	[. ¹²]το Παιο[νίδης]	Πο[- - - - -]
	[. ¹¹]φρονος Φ[ρεάρι]ος	Κν[- - - - -]
	[Θεοκλῆς Λευ]κίο Σοι[εύς]	vacat
	[Φανόμαχος] Διονυσί[ο Σοιεύς]	Ξ[γγραφοι]
	[Ἀκαμαντί]δος	Π[- - - - -]
40	[. . . . ⁷ . . .]ος Διοδώρ[ο - - - - -]	- - - - -
	[. . . . ⁶ . . .]άτης Τιμο[. . . . ¹⁰]ος	

45 vacat

 τοϋ[- - - - -]

 δημ[- - - - -]

 θε[- - - - -]

50 ηπ[- - - - -]

 vacat

 [- - - - -]εϋτ[- - - - -]

 [- - - - -]ζη[- - - - -]

 [- - - - -]ιη[- - - - -]

55 [- - - - -]οϋ[- - - - -]

 - - - - -

The inscription records a list of names arranged in two columns and separated according to the ten official tribes. The character of the lettering and the use of **O** for **OY** indicate a date in the first half of the fourth century. So little is preserved of the prescript in lines 1 and 2 that the occasion for the document remains obscure, but it resembles in its general form the earlier lists of those killed in battle who were buried at public expense in the Kerameikos. It is true that in the inscriptions of the fifth century the names were not written in full with patronymic and demotic, as is the case in the record now under discussion, but this divergence is readily explained by the different dates to which the inscriptions belong. Moreover, the prescript of lines 1 and 2 may be restored on the analogy of *I.G.* I², 943, for example, somewhat as follows:

[ἐϋ - - - - - Ἀθ]ῆναι[αίων οἶδε ἀπέθανον] vacat.

There are other specific similarities with these earlier burial monuments. After the names have been listed (lines 3–41) there appear the beginnings of four lines (47–50), well indented from the left margin of the stone, and separated from the text above and below. These lines seem to be the beginning of two elegiac couplets, such as might be appropriately added to the inscription to recount the valor of the dead and to praise in song their courage in the war in which they lost their lives. I have been unable to identify the lines in question with any known elegy, but the custom of adding such elegies after the names of the dead is well illustrated by *I.G.* I², 943.

After the list of men from Antiochis there is one line on the stone uninscribed, followed by a single preserved epsilon indented slightly toward the right. In *I.G.* I², 949 (line 76), a category of *ἐντοφισταί* followed the names from Antiochis. The same restoration seems reasonable here and offers an additional indication that the present document also is a public grave stele for men who fell in battle.

I have not as yet identified with certainty any of the names listed in the inscription, though the sons of two of the men from Sounion are known. In line 37 appears a patronymic ending in - - - **KIO**. It so happens that the only name known from

Sounion which can be restored in this line is *Λεύκιος*. A certain *Λεύκιος Θεοκλέους Σουνιεύς* is mentioned in *I.G. II*², 417 (*P.A.* 9057) which must be dated approximately in 330 B.C. The present inscription gives the name of the father Theokles, son of Leukios. The necessary restoration exactly fills the space available on the stone in line 37.

We know also a Dionysios, son of Phanomachos, from Sounion, whose name appears on a grave monument from the latter part of the fourth century (*I.G. II*, 2550; *P.A.* 4245). In line 38 of the present document the name of the father should be restored: [*Φανόμαχος*] *Διονυσί[ο Σουνιεύς]*, filling exactly the amount of space available on the stone.

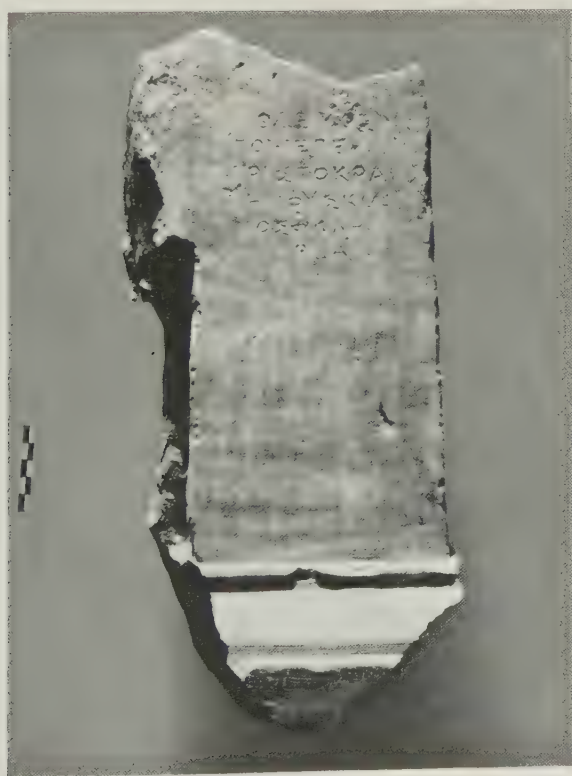
If we recede one generation from the possible *floruit* of Leukios in 330 B.C. it is possible to date the inscription here under discussion in the second quarter of the fourth century.

4. An inscribed statue base of Hymettian marble, found in Section E in a late wall 5/B-I.

Height, 0.38 m.; width, 0.18 m.; thickness, 0.22 m.

Height of letters, 0.007 m.

Inv. No. 152 I 13.



ὁ δῆμος
τὸν ἱερέα
Ἀριστοκρά
την Φυσκίω
5 νος Φαλη
ρέα

Fig. 4

The inscription may be dated by the form of the letters in the early fourth century. Aristokrates should probably be identified as the Aristokrates who was choregos at the Dionysiac festival in 388/7, when he provided the chorus for one of the tragedies of the younger Sophokles (*I.G.* II², 2318).

5. Two contiguous fragments of a stele of Pentelic marble, found built into a late wall just in front of the Stoa of Zeus. The upper fragment (Inv. No. 930 I 96) is preserved to the full width of the stele but the surface along the right edge has been lost. The left edge of the lower fragment (Inv. No. 154 I 15) is also preserved.

Height, 0.475 m.; width, 0.43 m.; thickness, 0.13 m.

Height of letters, 0.006 m.

	Ἐπὶ Ὀλβίου ἄρχοντος ἐπὶ τῆς Ἀεωντίδος δωδεκάτ[ης περ]	CTOIX
	υτανείας ἦι Κυθίας Τιμωνίδου Εὐωνυμεὺς ἐγρα[μμάτε]	43
	υεν, Σκιροφοριῶνος ἐνει καὶ νέαι, ἐνάτει καὶ εἰ[κοστῇ]	
	ι τῆς περτυανείας· ἐκκλησίαν· τῶν προέδρων ἐπεψή[φιζεν]	
5	Ἀισχίνης Ἀντικράτου Φαληρεὺς καὶ συμπρόεδροι· ἔδο]	
	ξεν τῇ βουλῇ καὶ τῷ δήμῳ· Ἀέων Κυρησίου Αἰ[ξωνεὺς]	
	εἶπεν· ἐπειδὴ οἱ ταξίαρχοι οἱ ἐπὶ Ὀλβίου ἄρχοντος ἦρ]	
	[ξάν] τὴν ἀρχὴν καλῶς κ[αὶ] κατὰ το[ύς νόμους] [καὶ τὰς τε θυ]	
	σίας ὅσας ἔδει αὐτοὺς θῆσ[αι καλῶς καὶ φιλοτίμως πάσ]	
10	ας ἐκ τῶν ιδίων τεθύκασιν [καθάπερ ἐτάχθησαν ὑπὸ τοῦ]	
	δήμου, ἐπεμελήθησαν δὲ καὶ [ὥς κάλλιστα τῆς εὐπορίας]	
	τῆς τάξεως τῆς ἐαυτοῦ ἕκασ[τος ὅπως ἂν πάντες εὖ παρῇ]	
	σκενασμένοι τοῖς ὅπλοις ἐ[κτενεῖς καὶ πρόθυμοι εἰς]	
	τὰς φυλάκας πορεύονται, δι[ετέλεσαν δ' ἐν τοῖς ἔξετασ]	
15	μοῖς πᾶσιν πειθαρχοῦντες [τοῖς στρατηγοῖς ἀκολούθ]	
	ως τοῖς νόμοις, ὅπως ἂν οὖν ἐ[φάμιλλον ἦι τοῖς ἄρχουσι]	
	ν τὴν ἀρχὴν ταύτην φιλοτίμ[ως καὶ δικαίως ἄρχειν, ἀγα]	
	θῇ τῷ τε δεδόχθαι καὶ βου[λῇ τοὺς προέδρους οὔτιν]	
	ες ἂν λάχουσιν προεδρεύειν ἐ[ν τῷ δήμῳ εἰς τὴν ἐπιού]	
20	σαν ἐκκλησίαν χρηματίζειν π[ερὶ τούτων, γνώμην δὲ ξυμ]	
	βάλλεσθαι τῆς βουλῆς εἰς [τὸν δῆμον ὅτι δοκεῖ τῇ βου]	
	λῇ ἐπαυτέσαι τοῖς τα[ξιάρχουσιν τοῖς ἐπὶ Ὀλβίου ἄρχο]	
	ντος καὶ στεφανῶ[σαι αὐτοὺς χρυσῶι στεφάνῳ κατὰ τὸ]	
	ν νόμον ἀρε[τῆς ἕνεκα καὶ ἀνδραγαθίας τῆς εἰς τὴν βου]	
25	λὴν καὶ τὸ [ν δῆμον τὸν Ἀθηναίων, εἶναι δὲ αὐτοῖς καὶ περ]	
	σεδρία[ν ἐν ἑκαστῇ τοῖς ἀγῶσιν οὗς ἂν ἡ πόλις τιθεῖ. ἀν]	
	αγρὰ[ψαι δὲ τότε τὸ ψήφισμα τὸν γραμματέα τὸν κατὰ περ]	
	υ[τανείαν ἐν στήλῃ λιθίνει καὶ στήσαι ἔμπροσθεν το]	
	[ῶ στρατηγίου. - - - - -]	



Fig. 5

In Dinsmoor's discussion of the archons between 292/1 and 262/1 B.C. he found that the two years 277/6 and 276/5 belonged in all probability to Sosistratos and Olbios, though there was no evidence to show which archon should be assigned to the earlier year and which to the later.¹ The present inscription gives in full the name of the secretary as Kydias the son of Timonides of the deme Euonymon. Since this deme belongs to the third tribe, Erechtheis, Olbios must be assigned to 277/6, thus leaving 276/5 available for Sosistratos.

The orator of the decree was Leon, son of Kichesias, of Aixone. An ephebos under the archonship of Kimon bearing this name is listed in *I.G.* II², 787. But there is no available year after Kimon's archonship to which Olbios, with a secretary from Erechtheis, can be assigned. I assume rather that the orator of the present decree was the grandfather of the ephebos of Kimon's year. Under these circumstances it appears that the elder Leon was probably about thirty-five years old in 277/6, and of appropriate age to be taking part in the deliberations of the Athenian Council.

The restoration of the document is based largely on well-known formulae. I am indebted to W. S. Ferguson for the suggestions offered in lines 11 and 12. The reading supplied in line 14 is based in part on line 12 of *I.G.* II², 500, another decree of earlier date honoring a board of taxiarchs. This earlier decree was set up in front of the strategion (*I.G.* II², 500, line 39), and since its place of discovery so nearly coincides with the place where the present inscription was found, I feel confident that the words *καὶ στήσαι ἐμπροσθεν τοῦ στρατηγίου* suggested in lines 28–29 afford a sound restoration.

Professor Ferguson informs me by letter that there is some ground for believing that Olbios should be assigned to a date after the Chremonidean war. But a full statement of the case for this later date would involve a completely new analysis of the archon lists of the latter half of the century, and must await the publication of Ferguson's forthcoming monograph on the secretary cycles.²

6. Fragment of a stele of Hymettian marble, broken at top and bottom, but with both sides preserved. Found in Section E 9/ΑΓ at a depth of 1.50 m.

Height, 0.485 m.; width, 0.606 m.; thickness, 0.172 m.

Height of letters, 0.006 m.

Inv. No. 200 I 61.

¹ Dinsmoor, *The Archons of Athens*, p. 76.

² Since this was written Ferguson's book, *Athenian Tribal Cycles*, has appeared. His date for Olbios is 247/6 (pp. 24, 26, and 35–36).

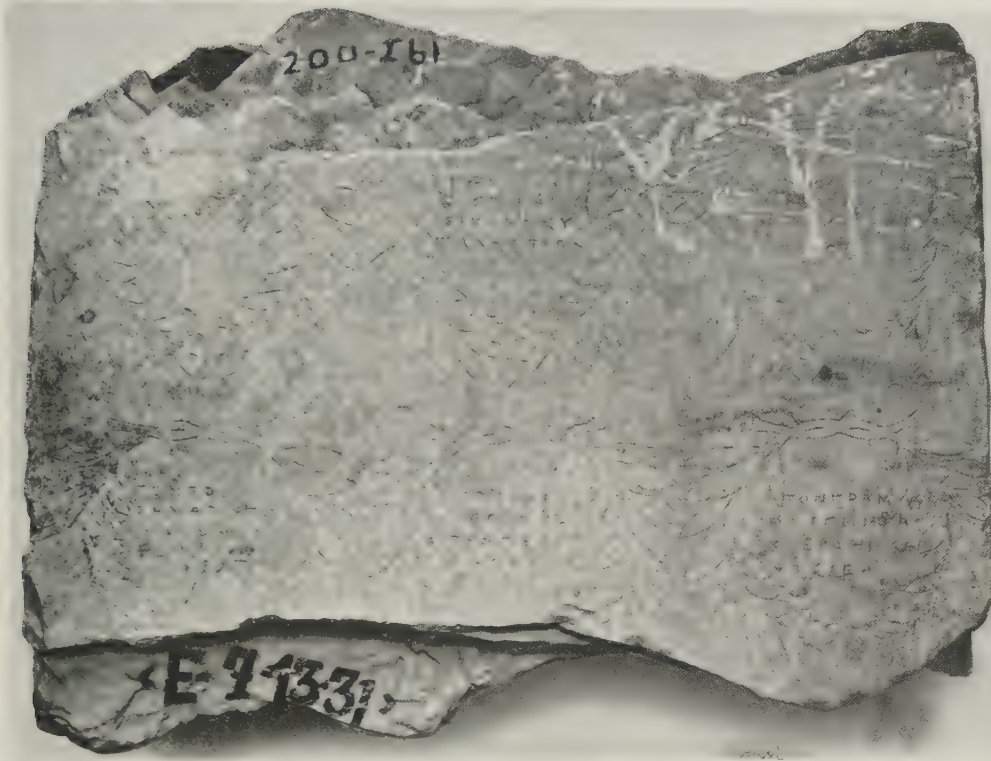


Fig. 6

	[τὸν παι]δ	τὸν ἀκον	τὸν δπλο
	[οτι]δ]ιν Ἑόρ	τιστὴν Αὐ	μάχην Χα
	[τι]ον Ἀχαιο	σικλὴν Σν	ρίσανδρον
	[ν]έα	παλὶτιον	Ἀλι[μ]ούσιον
5	τὸν τοξό	τὸν κατα	τὸν γραμ
	την Ἀρισιο	παλιαφέ	ματέα Ἑρα
	κράτην Κοῦ	την Πεδιάα	κλείδην Κη
	τα	Ὀϊθεν	φισιέα

This document makes a welcome addition to the few inscriptions now preserved honoring the epheboi of the third century. The part of the stone containing the honorary decree and the list of epheboi has been lost, but the names of the ephebic instructors have been preserved. It happens that three of these are known from other inscriptions of the latter half of the century.

Heortios of Acharnai was an ephebe in the archonship of Philoneos when his father Hermodoros was paidotribes (*I. G.* II², 766). He appears as paidotribes in the present

document, and was still acting as paidotribes in one of the years after the creation of the tribe Ptolemais (*I.G.* II², 944 b). The long career as paidotribes which his father enjoyed before him extended from the archonship of Menekles through the archonships of Thymochares, Philoneos, and Polyeuktos (*I.G.* II², 665, 700, 766, and 681). According to Dinsmoor's arrangement of the archons, this is a span of at least twenty-one years, from 269/8 to 249/8.¹ Dinsmoor's dates for the archons down to the end of the Chremonidean war I now accept as substantially correct, but in view of the varied suggestions still made for Thymochares, Philoneos, and Polyeuktos,² I refrain from assigning definite dates to these archons and limit myself to indicating the bearing which the present inscription has upon the problem.

Since Heortios II (*P.A.* 4741), the son of Hermodoros II (*P.A.* 5138) is now paidotribes, it follows that the inscription must be dated after Thymochares, Philoneos, and Polyeuktos. Unfortunately the names of the akontistes and hoplomachos are not preserved for the year of Polyeuktos. But in the year of Thymochares, or rather in the year immediately preceding Thymochares, the akontistes was Lysikles of Sypalettos and the hoplomachos was¹ of Ankyle (*I.G.* II², 700, lines 29–30). The same akontistes is mentioned in the present document, though the hoplomachos is different. In the year of Philoneos (*I.G.* II², 766) the akontistes was still Lysikles of Sypalettos, and the hoplomachos was Charisandros. These are the names which appear in the new inscription here published. The inference to be drawn is that Thymochares, Philoneos, and the unknown archon of this new document form an open sequence in the order given. There is no new evidence for the relative date of Polyeuktos, though one is tempted to place Thymochares and Philoneos as late as possible in order to avoid long careers for Lysikles and Charisandros. Perhaps this is not necessary.

Lysikles of Sypalettos appears not only as akontistes in *I.G.* II², 700 and 766, but as priest of Asklepios in *I.G.* II², 1534, lines 204 and 208. The new inscription shows that Charisandros belonged to the deme Halimous (line 4). The demotic [*Ἀλιμούσι*]ον may now be restored in *I.G.* II², 766, line 42. A similar restoration should be made in *I.G.* II², 766, line 10. Dinsmoor's tentative suggestion (*op. cit.*, p. 167) that Charisandros of *I.G.* II², 766, should be identified with [- - - - Νι]κάνδρον Ἀγκιλήθεν of *I.G.* II², 700, line 30, is to be rejected.

A possible date for the inscription is about 240 B.C. Cf. Ferguson, *Athenian Tribal Cycles*, pp. 102–107.

7. Stele of Pentelic marble, broken at the bottom and at the right. The inscribed surface is surmounted by mouldings and part of a pediment. Found in Section E 20/KE at 0.60 m.

¹ Dinsmoor, *The Archons of Athens*, pp. 30–31.

² Flacelière, *B. C. H.*, 1928, pp. 285–291 (cf. Dinsmoor, *op. cit.*, p. 111, note 8); Robert, *B. C. H.*, 1930, pp. 322–332. Cf. also Ferguson, *Athenian Tribal Cycles*, *passim*.

Height, 0.196 m.; width, 0.252 m.; thickness, 0.127 and 0.085 m.

Height of letters, 0.005 to 0.007 m.

Inv. No. 498 I 79.

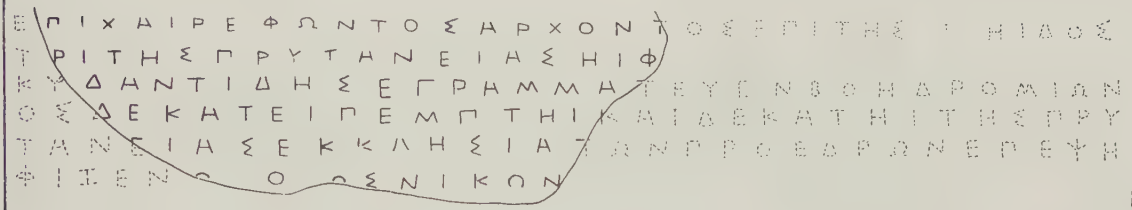


Fig. 7

[Ε]πὶ Χαιρεφώντος ἄρχοντος ἐπὶ τῆς .ι. ἡίδος]

NON CTOIX

[τρίτης πρυτανείας ἥι Φ[- - - - -]]

31-36

[Κυ]δαντίδης ἐγραμμάτ[ευσεν· Βοηδρομιῶν]

[ος] δεκάτει, πέμπτη καὶ δεκάτη τῆς πρυ

5 [ταν]είας· ἐκκλησίᾳ τῶν προέδρων ἐπειψή]

[φίξεν·] Ο - Ο[.]ος Νίκων[ος - - - - -]

The inscription is not written *stoichedon*, and the lines contain from 31 to 36 letters each. In line 1 the name of the prytanizing tribe should be restored with as few letters as possible, either as *Οἰνηίδος* or as *Αἰγῆίδος*. It has been generally assumed that the archon Chairephon preceded by four years the archon Diokles III, both of whom are mentioned in an Eleusinian garrison decree (*I.G.* II², 1304).¹ This inscription, however, brings the first definite proof of this time relationship, for it names the secretary of the year of Chairephon as Φ[- - - - - Κυ]δαντίδης. In the period of the thirteen tribes, during which both Chairephon and Diokles must be dated, the deme Kydantidai belonged to the seventh tribe, Ptolemais. The secretary of the year of Diokles is known as *Λεισιοφάνης Στρατοκλέους Κειριάδης* (*I.G.* II², 847), belonging to the eleventh tribe, Hippothontis; and the four-year interval between them is thus established. Diokles is dated in 215/4 by those who assign the secretary of Thrasyphon's year (221/0) to Pandionis (V), or in 211/0 by those who assign him to Antigonis (I). The date of Chairephon is thus determined as 219/8 (Ferguson-Kirchner in *I.G.* II², iv, p. 16) or as 215/4 (Dinsmoor, *op. cit.*, p. 209). The present inscription gives the initial letter of the secretary's name and his demotic. It also affords evidence for the calendar character of the year, for the equation Boedromion 10 = Prytany III, 15 belongs to an ordinary year of twelve months in the period of the thirteen tribes. The first two prytanies of the year each contained twenty-seven days.

¹ Dinsmoor, *The Archons of Athens*, p. 209.

8. Fragment of Pentelic marble, broken on all sides, found in Section E 30/KF at 0.50 m.
 Height, 0.183 m.; width, 0.15 m.; thickness, 0.055 m.
 Height of letters, 0.005–0.007 m.
 Inv. No. 496 I 77.



Fig. 8

[- - - - - ἐπειδὴ οἱ πρυτάνεις τῆς - - -]
 [καὶ οἱ ἀείσιτοι ἐπαινέσαντες καὶ στεφανώσαντες ἀποφαίνο]
 [υσιν τῷ βουλευτῇ τὸν ταμίαν ὃν εἵλοντο οἱ πρυτάνεις ἐξ ἐαυτῶν]
 [nomen demoticum τὰς θυσίας τεθυκέναι πάσας τὰς καθηκούσ]
 5 [ας ἐν τῇ περὶ ταφείας ὑπὲρ τε τῆς βουλῆς καὶ τοῦ δήμου ἐπιμεμελῆσ]

NON
 CTOIX
 e. 52

- [θαι δὲ καὶ τῶν ἄλλων ἀπάντων καλῶς καὶ φιλοτιμῶς, ἀγαθῇ τύχῃ]
 [δεδοχθαι τῷ βουλευτῇ ἐπαίνεισαι τὸν ταμίαν nomen nomen patris]
 [demotieum]ν καὶ στεφανῶσαι θαλλοῦ στεφάνῳ ἐπαινεῖσαι]
 [δὲ καὶ τὸν γ]ραμματέα Μα[nomen nomen patris demotieum καὶ τὸν]
 10 [γραμματέα] τῆς βουλῆς καὶ [τοῦ δήμου nomen nomen patris]
 [demotieum καὶ τὸν ὑπογραμματέα nomen nomen patris demotieum]
 [καὶ τὸν κήρυκα τῆς βουλῆς [καὶ τοῦ δήμου nomen demotieum καὶ]
 [τὸν ἀγροῦ]ν Κα[λ]ικράτην demotieum καὶ τὸν ταμίαν τῆς βουλῆς]
 [nomen] Ἐρχιέα καὶ [στεφανῶσαι ἕκαστον ἀντιῶν θαλλοῦ στεφ]
 15 [άνῳ ^{vvv} ἀνα]γράφαι δ[ὲ τόδε τὸ ψήφισμα τὸν γραμματέα τὸν κατὰ]
 [πρυτανεῖαν ἐ]ν στήλῃ λ[ιθίνει καὶ στήσαι ἐν τῷ πρυτανικῷ]
 [εἰς δὲ τὴν ἀναγραφὴν καὶ [τὴν ἀνάθεσιν τῆς στήλης μερίσαι τὸν ταμ]
 [ιαν τῶν στρατιω]τικῶν [τὸ γενόμενον ἀνάλωμα]

The inscription is to be dated in the early second century, where numerous similar documents are found (*I.G.* II², 864, 899, 912, 913, 914, 915, 917, 918, 952, 972). It may be noted also that most of these documents were found in the region of the ancient Agora. The lines of this inscription each contain about fifty-two letters, but are not written *stoichedon*. The restorations follow well-established formulae and require little comment. The phrase ἐν τῷ πρυτανικῷ in line 16 has been supplied on the analogy of *I.G.* II², 918, line 13.

9. A stele of Pentelic marble, preserved in several small fragments which can be united to form two major groups. Found in Section E 30/KI at 0.50 m.

Fragment *a*: Height, 0.468 m.; width, 0.24 m.; thickness at edge 0.045 m., at centre 0.105 m.

Fragment *b*: Height, 0.38 m.; width, 0.24 m.; thickness, 0.096 m.

Height of letters, 0.007 m.

Inv. No. 497 I 78.

- Ἐπὶ Ἰάσ[ονος ἄρχοντος ἐπὶ τῆς Κεκρο]πίδος δευτέρας πρυτανεί
 ας ἦι Ἀθην[όδορος Ἀναξικράτους Ἐλ]ευ[σίνο]ς ἐγραμμάτευν Μετα
 γειννῶνος [τετράδι ἐπὶ δέκα, τετ]άρτει καὶ δεκάτῃ τῆς πρυτανείας
 [ἐκκλησία κυρία [ἐν τῷ θεάτρῳ τῶν] προέδρων ἐπεψήφισεν Ἀνκόφρων
 5 [Ἀν]τιγόπου Σουιε[ὺς καὶ συμπρόεδροι ^{vvvv} ἔδοξεν τῷ δήμῳ
 [Καραῖ]χος Καραῖχον Ἀ[λαιο]ς εἶπεν· ὑπὲρ ὧν ἀπαγγέλλουσιν οἱ πρυτάνει[ς]
 [τῆς Ἐρε]χθείδος ὑπὲρ τῶ[ν] θυσιῶν ὧν ἔθνον πρὸ τῶν ἐκκ[λησιῶν] τῷ τε Ἀ
 [πόλλωνι] τῷ προστατηρίῳ καὶ τῇ Ἀρτέμιδι τῇ Βουλαίῃ καὶ τῇ Φωσφό
 [ρῳ καὶ τοῖς ἄλλοις θεοῖς οἷς π[άτριον] ἦν ^{vv} ἀγαθῇ τύχῃ δεδ[όχθαι] τῷ δή
 10 [μῳ τὰ μὲν ἀ]γαθὰ δέχεσθ[αι] τὰ γερονότα ἐν τοῖς ἱεροῖς οἷς] ἔθνον ἐφ' ὃ
 [γυῖαι καὶ σωτη]ρίαι τῆς τε [βουλῆς καὶ τοῦ δήμου καὶ παίδων καὶ] γυναικῶν
 [καὶ φίλων καὶ συμμά]χων ^v ἐ[πειδὴ] δὲ οἱ πρυτάνεις τάς τε θυσί[ας] ἔθυσαν]

NON
 CTOIX
 c. 50–60

- [τὰς καθηκούσας ἐν] τῇ π[ρυτανείᾳ, ἐπεμελήθησαν δὲ καὶ τῇ]ς συλλογ[ῆς]
 [τῆς τε βουλῆς καὶ τοῦ δήμου καὶ τῶν ἄλλων ἐπάντων ὧν αὐτ]οῖς προσ[έτ]
 15 [αἶτον οἱ τε νόμοι καὶ τὰ ψηφίσματα τοῦ δήμου, ἐπαινέσαι τοὺς πρ]υτάνε[ις τῆς]
 [Ἐρεχθείδος καὶ στεφανῶσαι αὐτοὺς χρυσῶι στεφάνῳι κατὰ τ]ὸν νό[μον εἶς]
 [εβείας ἕνεκα τῆς πρὸς τοὺς θεοὺς καὶ φιλοτιμίας τῆς πρὸ]ς τ[ὴν βουλὴν]
 [καὶ τὸν δῆμον τὸν Ἀθηναίων· ἀναγράψαι δὲ τόδε τὸ ψήφισμα τὸ]ν [γραμματέα]
 [τὸν κατὰ πρυτανείαν ἐν στήλῃ λιθίνῃ καὶ στήσαι οὗ ἂν ἐπιτήδειον εἶναι]
 20 [φαίνεται· τὸ δὲ γεγόμενον ἀνάλωμα μερίσαι τὸν ταμίαν τῶν στρατιωτικῶν.]

ΕΠΙΛΑΣΟΝΟΣΑΡΧΟΝΤΟΣΕΠΙΤΗΣΚΕΚΡΟΠΙΔΟΣΔΕΥΤΕΡΑΣΠΡΥΤΑΝΕΙ
 ΑΣΗΙΑΘΗΝΟΔΩΡΟΣΑΝΑΞΙΚΡΑΤΟΥΣΕΛΕΥΣΙΝΙΟΣΕΓΓΡΑΜΜΑΤΕΥΕΝΜΕΤΑ
 ΓΕΙΤΝΙΩΝΟΣΤΕΤΡΑΔΙΕΠΙΔΕΚΑΤΕΤΑΡΤΕΙΚΑΙΔΕΚΑΤΗΤΗΣΠΡΥΤΑΝΕΙΑΣ
 ΕΚΚΛΗΣΙΑΚΥΡΙΑΕΝΤΩΙΦΕΑΤΡΩΙΤΩΝΠΡΟΕΔΡΩΝΕΠΕΨΗΦΙΣΕΝΛΥΚΟΦΩΝ
 ΑΝΤΙΓΟΝΟΥΣΟΥΝΙΕΥΣΚΑΙΣΥΜΠΡΟΕΔΡΟΙ ΕΔΟΞΕΝΤΩΙΔΙΜΩΙ
 ΚΑΡΑΙΧΟΣΚΑΡΑΙΧΟΥΑΛΑΙΕΥΣΕΠΙΕΝΥΠΕΡΩΝΑΤΑΓΓΕΛΛΟΥΣΙΝΟΙΠΡΥΤΑΝΕΙΣ
 ΤΗΣΕΡΕΧΘΕΙΔΟΣΥΠΕΡΤΩΝΟΥΣΙΩΝΩΝΕΘΟΥΝΤΙΡΟΤΩΝΕΚΚΛΗΣΙΩΝΤΩΙΤΕΑ
 ΠΟΛΛΟΝΙΤΩΙΠΡΟΣΤΑΤΗΡΙΩΙΚΑΙΤΗΙΑΡΤΕΜΙΔΙΤΗΙΒΟΥΛΑΙΑΙΚΑΙΤΗΙΦΩΣΦΟ
 ΡΩΙΚΑΙΤΟΙΣΑΛΛΟΙΣΘΕΟΙΣΟΙΣΠΑΤΡΙΟΝΗΝ ΑΓΑΘΗΤΥΧΗΙΔΕΔΟΧΘΑΙΤΩΙΔΗ
 ΜΩΙΤΑΜΕΝΑΙΓΑΘΑΔΕΧΕΣΘΑΙΤΑΓΕΓΟΝΟΤΑΕΝΤΟΙΣΙΕΡΟΙΣΟΙΣΕΘΟΥΝΕΦΥ
 ΓΙΕΙΑΙΚΑΙΣΩΤΗΡΙΑΙΤΗΣΤΕΒΟΥΛΗΣΚΑΙΤΟΥΔΗΜΟΥΚΑΙΠΑΙΔΩΝΚΑΙΥΙ
 ΑΙΚΩΝ ΚΑΙΦΙΛΩΝΚΑΙΣΥΜΜΑΧΩΝ ΕΠΕΙΔΗΔΕΟΙΠΡΥΤΑΝΕΙΣΤΑΣΤΕΟΥΣΙΑΣΕΟΥΣΑΝ
 ΤΑΣΚΑΘΗΚΟΥΣΑΣΕΝΤΗΠΡΥΤΑΝΕΙΑΙΕΠΙΕΜΕΛΗΘΗΣΑΝΔΕΚΑΙΤΗΣΣΥΛΛΟΓΗΣ
 ΤΗΣΤΕΒΟΥΛΗΣΚΑΙΤΟΥΔΗΜΟΥΚΑΙΤΩΝΑΛΛΩΝΑΤΤΑΝΤΩΝΩΝΑΥΤΟΙΣΠΡΟΣΕΤ
 ΑΤΤΟΝΟΙΤΕΝΟΜΟΙΚΑΙΤΑΨΗΦΙΣΜΑΤΑΤΟΥΔΗΜΟΥΕΠΑΙΝΕΣΑΙΤΟΥΣΠΡΥΤΑΝΕΙΣΤΗΣ
 ΕΡΕΧΘΕΙΔΟΣΚΑΙΣΤΕΦΑΝΩΣΑΙΛΑΥΤΟΥΣΧΡΥΣΩΙΣΤΕΦΑΝΩΙΚΑΤΑΤΟΝΝΟΜΟΝΕΥΣ
 ΕΒΕΙΑΣΕΝΕΚΑΤΗΣΠΡΟΣΤΟΥΣΘΕΟΥΣΚΑΙΦΙΛΟΤΙΜΙΑΣΤΗΣΠΡΟΣΤΗΝΒΟΥΛΗΝ
 ΚΑΙΤΟΝΔΗΜΟΝΤΟΝΑΘΗΝΑΙΩΝΑΝΑΓΡΑΨΑΙΔΕΤΟΔΕΤΟΨΗΦΙΣΜΑΤΟΝΕΓΓΡΑΜΜΑΤΕΑ
 ΤΟΝΚΑΤΑΠΡΥΤΑΝΕΙΑΝΕΝΣΤΗΑΗΛΙΘΙΝΗΚΑΙΣΤΗΣΑΙΟΥΑΝΕΠΙΤΗΔΕΙΟΝΕΙΝΑΙ
 ΦΑΙΝΗΤΑΙΤΟΔΕΓΕΓΟΜΕΝΟΝΑΝΑΛΩΜΑΜΕΡΙΣΑΙΤΟΝΤΑΜΙΑΝΤΩΝΣΤΡΑΤΙΩΤΙΚΩΝ

Fig. 9

The inscription is dated in the archonship of Jason II, 125/4 B.C. The name of the secretary in the year of Jason is given in *I.G.* II², 1003, as [- - - -] Ἀναξικράτους Ἐλευσίνιος. The present document (line 2) makes it possible now to restore the complete name as Ἀθηνόδωρος Ἀναξικράτους Ἐλευσίνιος. By comparison also with *I.G.* II², 1003, it appears that the name of the orator (line 6) was Καράϊχος Καράϊχον Ἀλαιεύς. The father (*P.A.* 8252) is known from Athenian coins of the first half of the second century. His demotic Ἀλαιεύς is given in *I.G.* II², 1003, and the name of his son Καράϊχος is added by this new inscription.

The date of the decree as given on the stone in line 3 does not show whether the year of Jason was an ordinary year of twelve months or an intercalary year of thirteen months. The restorations of the date within the month τετράδι ἐπὶ δέκα and ἐβδόμη ἐπὶ

δέξα are equally possible epigraphically; the former is appropriate for an ordinary year, while the latter would necessitate the assumption that the year was intercalary. The question can be decided only by reference to the already published inscription of Jason's year (*I.G.* II², 1003).

The name of the secretary Ἀθηνόδωρος may now be restored at the end of line 1 in *I.G.* II², 1003. The number of the prytany is unknown, but may have occupied a minimum of five letter spaces (ἐκτης) or a maximum of nine letter spaces (ἐνδεκάτης or δωδεκάτης). The number of letters in line 1 was consequently 61 or more, up to a maximum of 65. Although the inscription is not *stoichedon*, the lines so far as preserved contain approximately the same number of letters in an equal distance upon the stone. Under these circumstances, line 3 should also be restored with 61–65 letters; the actual restoration available, with the phrase ἐκκλησία ἐν τῷ θεάτρῳ, occupies 61 letter spaces.

A similar argument applies to lines 6 and 7. The inscription is evidently concerned with honors voted to a retiring board of prytaneis during the succeeding prytany of the year. The customary formula of these decrees must be supplied in the lines in question: ὑπὲρ ὧν ἀπαγγέλλουσιν οἱ πρυτάνεις τῆς | - - - - ἰδος ὑ]πὲρ τ[ῶν θυνσιῶν ὧν ἔθνον, etc. The number of letters in line 6 is thus likewise restored as 61. At the beginning of line 7 must be supplied the longest tribal name, Ἰπποθωντίδος. If a shorter name is here restored, then the number of letters in line 6 falls below 61. It is apparent that the actual length of line was therefore more nearly 61 than 65 letters. The restoration suggested above for line 3 is confirmed, and the restoration of any one of the longer numerals after the name of the tribe in line 1 is shown to be highly improbable.

These observations are of importance because no equation of dates can now be found which will fill the lacuna in line 2 on the assumption that the year was intercalary. Various combinations are possible with an ordinary year. Accordingly, I restore the date in line 3 of the new inscription as Μεταγεινιώνος [τετράδι ἐπὶ δέκα - -]. I give here also the restored text of *I.G.* II², 1003:

NON CTOIX, c. 61

Ἐπὶ Ἰάσονος ἔρχοντος ἐπὶ τῆς Ἀντ[ιοχίδος - - - πρυτανείας ἤμ' Ἀθηνόδωρος]
Ἀναξικράτους Ἐλευσίνιος ἐγράμ[ματένεν· - - - - ὦνος - - - - -, - - -]
τει καὶ δεκάτει τῆς πρυτανείας· [ἐκκλησία ἐν τῷ θεάτρῳ· τῶν προέδρων ἐπεψή]
φιζεν Θεόδοτος Θεοδότου Κηφισ[ιεύς καὶ συμπρόεδροι·]

5

ἔδοξ[εν τῷ δήμῳ·]

[Καρᾶχος Κα]ραῖχον Ἀλαιεύς ε[ἶπεν· ὑπὲρ ὧν ἀπαγγέλλουσιν οἱ πρυτάνεις τῆς]
[Ἰπποθωντίδος ὑ]πὲρ τ[ῶν θυνσιῶν ὧν ἔθνον - - - - -]

10. Two fragments of Pentelic marble, broken on all sides, found in Section E 6/ΛΔ at 1.70 m. and Section E 7/ΛΖ at 1.10 m.

Fragment *a*: Height, 0.217 m.; width, 0.263 m.; thickness, 0.069 m. Inv. No. 203 I 64.

Fragment *b*: Height, 0.26 m.; width, 0.19 m.; thickness, 0.066 m. Inv. No. 199 I 60.
Height of letters, 0.007 m.

- [*Αὐτοκράτωρ Καῖσαρ* θεοῦ Ἀντωνίνου υἱός, θεοῦ Οὐήρου Παρθικοῦ ἀδελφ]ός,
 θ[εοῦ Τραιανοῦ Παρθικοῦ ἔκγονος, θεοῦ Ἀδρ]
- [*ιανοῦ* υἱός, *Μᾶρκος Αὐρήλιος Ἀντωνῖνος Σεβαστὸς Γερμανικὸς*, ἀ]ρχιερε[ὺς
 μέγιστος, δημαρχικῆς ἐξουσίας τὸ -,]
- [αὐτοκράτωρ τὸ -, ὑπατος τὸ γ', πατὴρ πατρί]δ[ος, ἀνθύπατος· καὶ
Αὐτοκράτωρ Καῖ][*σαρ Λούκιος*][ς *Αὐρήλιος Κόμμοδος, Μάρκου Αὐ*
ρηλίου Ἀντωνίνου υἱός, αὐτοκράτ]ορος [θεοῦ εὐσεβοῦς Ἀντωνίνου υἱ]ός,
 θεοῦ Τραια[νοῦ Ἀδριανοῦ ἔκγονος, θεοῦ]
- 5 [Τραιανοῦ ἀπόγονος, Σαρματικὸς]ς Γερμανικὸς[ς, αὐτοκράτωρ τὸ -, ὕ]πατος
 τὸ β', πατ[ὴρ] πατρίδος - - - - -]
 [- - - - -]ια vacat
 [- - - - -]τον τῶν ἐκ τῶν χω[- - - - -^{9.15} - - - - -]
 ἀνδράσιν ἐπὶ τὴν τῶν[- - - - -]
 [- - - - -]ον Κουαδράτον διδασκ[- - - - -^{9.13} - - - - -]α
 διατάξαντες ἐπεστείλατ[ε - - - - -]
 [- - - - -]ν ἀνδρας ἀξιολόγους οἷς τ[- - - - -^{9.12} - - - - -]ν
 ποιήσασθαι βεβούλησθε ὡς[- - - - -]
 10 [- - - - -]ω Κουαδράτω ταῦθ' ἡμῶν ταλ[- - - - -^{9.9} - - - - -]σθαι,
 δῆλον δ' ὡς ποιήσεσθε αἱ[- - - - -]
 [- - - - -]πιστεῖλας ποιήσει φροντίσας κα[ὶ - - - - -^{9.6} - - - - -]ς
 τέτταρας Ἰσας ὡς ῥάδιον ἐ[- - - - -]
 [- - - - -]τε. ὁρθῶς δὲ ἐποιήσατε καὶ ἐπιστε[- - - - -^{9.6} - - - - -]ε
 ὥσπερ δὴ καὶ εἰς τὰς ἐκκλ[ησίας - - - - -]
 [- - - - -]ιον ὑμῖν ἐδίδομεν τοῦ γράφειν ὡδῆ[ν καὶ οὐ]νεκα
 προσείμεθα ἡδέω[ς - - - - -]
 [- - - - -]περὶ μέ[ντοι] τῆς τοῦ ἄρχοντος καταστάσεως [λέγομε]ν
 ὑμῖν εὐγνωμόνως ἐκ[- - - - -]
 15 [- - - - -] ἐπιτ[ρο]ποὺς ἐξ ὧν ἐπιλεξόμεθα τὸν ἐπίτ[ρο]πον δς]
 τὴν αὐτῶν γνώμην ἐπ[- - - - -]
 [- - - - -] τοιοῦτον ἐπιστελεῖτε τὰ γράμματα ἐκ[εῖ].
 εὐτυ[χεῖτε]. vacat
- [*Αὐτοκράτωρ Καῖσαρ* θεοῦ Ἀντωνίνου υἱός, θεοῦ Οὐήρου Παρθικοῦ [ἀδελφ]ός,
 θεοῦ Τραιανοῦ Π[αρθικοῦ ἔκγονος, θεοῦ Ἀδρ]
- [*ιανοῦ* υἱός, *Μᾶρκος Αὐ*]ρήλιος Ἀντωνῖνος Σεβαστὸς Γερμανικ[ός,
 ἀρχι]ερεὺς μέγιστος[ς, δημαρχικῆς ἐξουσίας τὸ -,]
- [αὐτοκράτωρ τὸ -, ὑπα]τος τὸ γ', πατὴρ πατρίδος, ἀνθύπατος· [καὶ
Αὐτοκ][*ράτωρ Καῖσα*][ρ *Λούκιος Αὐρήλιος Κόμμοδος Μάρ*
 20 [*κου Αὐρηλίου Ἀντωνίνου Σ*]εβαστοῦ υἱός, θεοῦ εὐσεβοῦς[ς αὐτοκράτορος
 Ἀ]δριανοῦ [Ἀ]ντωνίνου υἱός, θεοῦ Ἀδριανοῦ]
 [ἔκγονος, Γερμανικὸς Σαρ]ματικὸς, δημα[ρχικῆς ἐξουσίας τὸ -,
 αὐτο]κράτω[ρ τὸ -, - - - - -]

The two fragments of this inscription have no point of contact, but the relative positions can be determined by the restorations in lines 17ff. The document is a letter to the Athenian people(?) from the joint emperors Marcus Aurelius and Commodus. The name of Commodus was deleted in antiquity and then again inscribed after the erasure.

The joint reign of Marcus Aurelius and Commodus extended from 176 to 180 A.D., but the date of this letter is more accurately determined by the fact that Commodus held the consulship for the second time (line 5). This necessitates a date during the year 179 A.D., or at least before the death of Marcus Aurelius in March of 180 A.D.

Mention is made in the inscription of a certain Quadratus (lines 8, 10). He is known to have been procurator ($\delta \epsilon \pi \iota \tau \rho \omicron \rho \omicron \varsigma \eta \mu \omega \nu$) from another inscription (*I. G.* II², 1108) which is also a letter to the Athenians from the emperors Marcus Aurelius and Commodus. It seems impossible to restore much of the text of the letter. In line 13, the reference to an $\omega \delta \eta$ (iota subscript was not used in this inscription) indicates that perhaps the letter was concerned, in part at least, with an ode composed in honor of the emperors. But lines 14 and 15 seem to deal with matters of more specific local administrative importance.

Even the restoration of the imperial titles presents unexpected difficulties, although it is clear that the lines contained approximately ninety letters each (not *stoichedon*). The name of Marcus Aurelius was probably written in the same way both in lines 1–3 and in lines 17–19, though his relationship to Hadrian ought normally to have been given before his relationship to Trajan. It is impossible to restore the same formula for Commodus in lines 3–5 and in lines 19–21.

There have been found also two smaller pieces belonging to this inscription which I give here as fragments *c* and *d*.

Fragment *c*: Found in Section E 4/A at 2.40 m.

Height, 0.17 m.; width, 0.115 m.; thickness, 0.067 m.; Height of letters, 0.007 m.

Inv. No. 149 I 10.

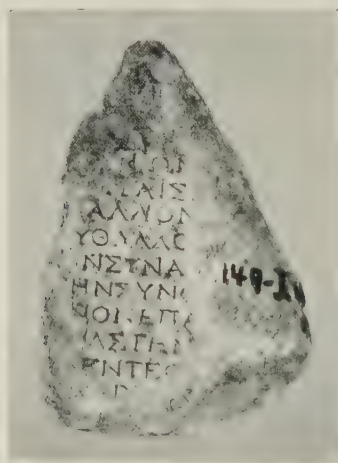


Fig. 10 *c*

- - - -	ων	- - - -	
- - -	εργαις	- - - -	
- - -	ν ἄλλον	- - - -	
- - -	ν θαλλο[ν	- - -]	25
- - -	ν συναρ[χο	- - -]	
[- - τ]	ην συνθ[ήκην	- - -]	
- - -	ρον έπα	- - - -	
- - -	ας τηγ	- - - -	
- - -	εντεθ	- - - -	30
- - - -	αις	- - - -	

Fragment *d*: Found in Section A 35/I at 1.60 m.

Height, 0.06 m.; width, 0.06 m.; thickness, 0.07 m.; Height of letters, 0.007 m.

Inv. No. 166 I 27.

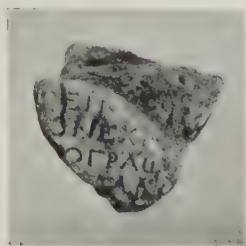


Fig. 10 *d*

- - - -	θειν	- - - -	
- - - -	ονεχε	- - - -	
- - - -	ογραφ	- - - -	
- - - -	αλλα	- - - -	35

The relation of these fragments to the larger pieces *a* and *b* is obscure. Both fragments are broken on all sides, but preserve their original thickness. In May of 1933 two additional fragments of this inscription were discovered, but publication of them must be delayed until a later report. It has also been found that *I.G.* II², 1108 actually joins directly beneath fragment *a*.

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BENJAMIN D. MERITT

Note: For the sake of complete final publication, students of the documents here printed are earnestly requested to send reprints of articles they may write concerning these inscriptions, or comments by letter, to Professor Benjamin D. Meritt, University of Michigan, Ann Arbor, Michigan, U.S.A.

THE SCULPTURE

Plate VI

A selection from the pieces of marble sculpture discovered during the campaign of 1931 will be presented here in a preliminary report. One piece, a marble herm, will be discussed in a subsequent paper by Professor George P. Oikonomos. The more fragmentary works will be reserved for the complete final publication of the results of the excavations. The marbles included in the present study fall into the three usual categories of Greek works, copies of Greek works made in the Roman period, and Roman works. Sculpture both in the round and in relief is represented.

1. A marble head from a relief. Figure 1. Inv. No. 324-S 118. Found on July 27, 1931 in Section E, 22/1Δ. Height: 0.27 m., width: 0.19 m. Pentelic marble.

The head represents a man of mature years, with mustache and beard and with the hair arranged in short curly locks. The lips are pressed together, there are pronounced lines on either side of the nostrils, and the eyes are deep-set at their inner ends. The style of the head illustrates the eclecticism of the fourth century. In its shape and in the treatment of the hair it is reminiscent of the work of Praxiteles, but the pathetic expression of the eyes, with their overhanging brows, is Skopasian in character.

The type illustrated by this head appears on Attic grave reliefs found in the Kerameikos and elsewhere in Athens and its neighborhood. The sepulchral monuments in the National Museum of Athens furnish excellent parallels. On one relief, Nat. Mus. No. 717, the man is standing in a group of three persons of which a seated woman is evidently the deceased wife.¹ Waldstein (Sir Charles Walston) has pointed out the similarity of this standing bearded man to the magistrates on the east frieze of the Parthenon.² For figures of the same type reference may be made to Conze's catalogue, Nos. 449, 450 (pl. CV), and 455. Heads which show but slight variations from the type appear on the following monuments listed by Conze: No. 239, pl. LIX; No. 304, pl. LXXII; No. 411, pl. XCVIII; No. 465, pl. CIX. This list could be almost indefinitely increased but sufficient examples have been cited to show that this is a typical head of the middle-aged man who is represented on the sepulchral monuments as mournfully gazing at a deceased wife or child.

¹ A. Conze, *Die attischen Grabreliefs*, I, No. 322, pl. LXXX. P. Gardner, *Sculptured Tombs of Hellas*, p. 168, pl. XXII.

² *Essays on the Art of Pheidias*, p. 315.



Fig. 1. A Marble Head from an Attic Grave Relief

As the head was found built into the side wall of a modern cess-pool no stratigraphic evidence is available for determining its date. Stylistically, however, it clearly belongs in the series of sepulchral monuments of the fourth century B.C.

2. A fragment of a relief. Figure 2. Inv. No. 309-S 103. Found on July 13, 1931 in Section E, 10/IST. Height: 0.165 m., width: 0.105 m., thickness: 0.095 m. Pentelic



Fig. 2. A Fragment of an Attic Grave Relief

marble which has been partly stained by fire. The back of the stone has been left in a roughly picked state, and its original edge is preserved only at the top.

The remains of two figures, a man and a woman, appear in relief beneath a plain horizontal moulding. Both of the figures face to the right. The head and bust of the woman are preserved, but of the man behind her only the front of the head remains. The head of the man is of the bearded mature type which is represented by our first number. But the woman is youthful. Her hair is arranged in a heavy roll about the forehead and is gathered in a knot at the back. The eye is in full profile in conformity

with the position of the head, and is set rather deeply under the brow. The girl wears a chiton which is arranged in graceful folds, and she has a cloak draped about her shoulders. The expression of the youthful features is charming as the young woman gazes with serenity and intensity at some object in front of her.

The types of the figures, their positions on the stone, and the manner of their treatment indicate that this fragment is broken from a sepulchral monument. The group as originally constructed was probably composed of three persons. On the left stood a man and a young woman, who were facing to the right and were looking down at a seated woman, the man's deceased wife. The arrangement may have been similar to that which occurs on a monument in the National Museum of Athens,¹ except that there the relative positions of the figures are reversed, since the seated figure is on the left of the group. In connection with that relief Conze designates the representation of both standing figures in profile as evidence of early date, but though that motive is present in the new fragment its stylistic character places it in the fourth century.

3. Marble statuette of a woman. Figure 3. Inv. No. 265-S 59. Found on June 13, 1931 in the large water-channel in Section E. Height: 0.20 m., width at the shoulders: 0.065 m. Parian marble.

The head, the left arm, and the feet are missing. The arm and the feet were made in separate pieces which were attached to the body by iron rods. The lower legs have been stained by the iron. The remains of a marble strut on the side, above the left knee, show that some object was attached to the figure.

The statuette is clearly made after the type of the Aphrodite of Knidos, and in its pose and its general appearance it approximates the replica in the Vatican, except in the treatment of the right forearm which is carelessly made and of the hand, which is dis-



Fig. 3. A Statuette of Aphrodite

¹ Conze, *op. cit.* No. 293, pl. LXIX.

proportionately large.¹ The position of the marble strut is much lower than is usual on the replicas.² It could have served no useful purpose on this copy since the statuette is too small to require any support. The craftsman must have inserted it because he



Fig. 4. Statuette of Aphrodite. Back View

found it on the statue which he was copying. The context in which the statuette was found dates from the third and fourth centuries A.D. It was certainly made in the

¹ Miss G. M. A. Richter has conveniently grouped some of the replicas in her *Sculpture and Sculptors of the Greeks*, figs. 668 to 672.

² A list of copies of the Aphrodite of Knidos is given by W. Klein, *Praxiteles*, pp. 251 ff. Cp. A. Furtwängler, *Meisterwerke*, p. 551, n. 2.

Roman period. The many reproductions of famous statues made by Greek artisans of that age could not have been made from the original works. In most cases they were undoubtedly copies made from copies. The presence of the strut on the statuette, therefore, furnishes no evidence on which to base arguments for its presence or absence on the Praxitelean statue.¹

A curious feature of the new copy is the arrangement of the hair behind (Fig. 4). Since the head is broken away only the lower part of the hair is preserved, but this hangs down in four straight stiff locks cut in a horizontal line at the bottom. It is a type of head-dress which is reminiscent of archaic style, and is quite foreign to the character of the Praxitelean Aphrodite as it is revealed in the many replicas.²

4. Marble statue of a woman. Figure 5. Inv. No. 243-S 37. Found on June 6, 1931 in Section E, 5/B. Height: 1.40 m., greatest width across body and overhanging cloak: 0.615 m. Pentelic marble.

The figure was found in four large pieces which had been built into a late wall. The head, the neck, and the front of the chest have been broken away, and the right arm and the left forearm are also missing. The left forearm had been made in a separate piece which had been fitted into the socket of the arm, where it was fastened with three pegs.

The statue stands with its weight on the right leg and with the left leg slightly bent at the knee. The woman is clad in a thin chiton and a himation. The latter is draped in such a manner as to pass diagonally across the back, with one end hanging over the left arm, while the other end is clasped by the right hand in front of the body. From this bunch of drapery the garment then hangs down to the feet in deeply cut folds. A series of eight small holes appears on one of the folds of the himation where it passes around the right hip and extends down in front. They may have served for the attachment of some metal ornament.

At the point where the folds are thickly assembled in front of the body an ancient repair of the marble exists. An oblong cutting was made in the marble, measuring 0.22 m. in length, 0.12 m. in width, and 0.053 m. in depth, into which the additional piece was inserted (Fig. 6). Since the marble and the workmanship of the insertion are similar to those of the statue the damage was probably done at the time the statue was made. Such injuries to statues must have often occurred in the course of manufacture, due to a defect in the marble or to some accident in the workshop.³ When the damaged piece was small the replacement was fastened in its bed with cement, as was done in the present case. The patch fits the socket perfectly, and the joints are partly concealed,

¹ See W. Klein, *Praxiteles*, pp. 261 and 379 f.

² For variations in the representation of the type compare Pottier and Reinach, *La Nécropole de Myrina*, p. 284.

³ C. Dugas in Daremberg and Saglio, *Dictionnaire des Antiquités, s.v. sculptura*, IV, pp. 1143 f.



Fig. 5. Marble Statue of a Woman

when the piece is in place, by folds of the drapery which are made so as to overlap the edges and to overlie the adjoining folds which have been slightly shaved away.

The clothing is represented as of thin texture, and its folds, especially along the left thigh, are depicted with great charm and delicacy. This careful treatment of the

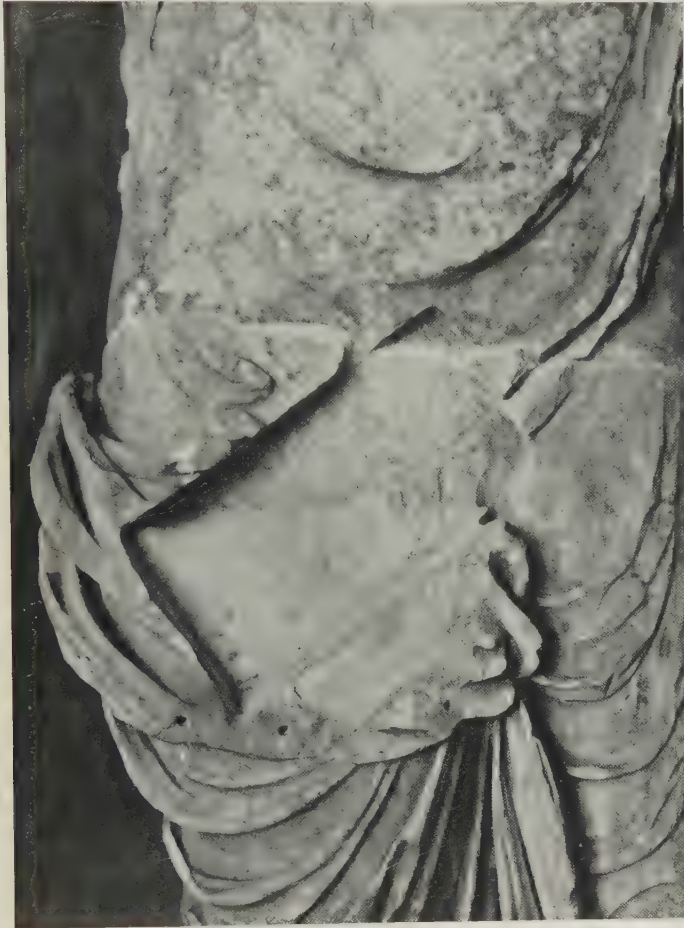


Fig. 6. Bed-cutting for an Ancient Repair

front of the figure contrasts strongly with the unfinished condition of the back where the tool marks on the surface have not been polished away (Fig. 7).

Various characteristics of the style of this figure bring it into association with the works attributed to Timotheos. A Nereid from the akroterion of the temple of Asklepios at Epidauros clasps in similar manner a bunched mass of drapery in front of the body.¹ And for this motive Lippold compares the statue of a Maenad in the Vatican (Goethe-

¹ Athens, National Museum. Cp. Richter, *op. cit.* p. 209, fig. 710.

tänzerin).¹ Also the way in which the mass of drapery hangs down on the left side is matched by the statues in this group which are cited by Lippold, such as the figure in Copenhagen, the Leda in the Villa Albani,² and a Nereid in the Archaeological Museum

in Venice.³ All these figures, moreover, like the statue from the Agora, are characterized by the careless finish of the backs.

In view of the divergence of opinion among scholars in interpreting ancient statues as Greek original works or as Roman copies it has become hazardous to make any definite affirmation on the subject unless the circumstances of discovery furnish conclusive evidence as to date. But, although the context in the present instance is not consistent in its chronology, it is significant that the wall in which the pieces of the statue were built yielded also four inscriptions of which three are dated by Professor Meritt in the early fourth century and one in the third.⁴ As the appreciation of a work of art rests largely on subjective grounds, there seems to me to be no compelling reason why the statue should not be assigned to approximately the same period to which the inscriptions belong.

5. Statue of the Emperor Hadrian. Plate VI. Figures 8–10. Inv. No. 1165–S 166. Found on July 25, 1931 in the large water-channel at the north end of Section E. Height: 1.52 m., width at the shoulders: 0.82 m. Pentelic marble.

The head, the left arm, the right forearm, and both legs are missing. The head had



Fig. 7. The Back of the Statue

¹ Text to Brunn-Bruckmann, *Denkmäler griechischer und römischer Skulptur*, pls. 664–665.

² *Ibid.* pl. 648.

³ *Ibid.* Text to pls. 664–665, figs. 1–2.

⁴ See the article on Inscriptions above, Nos. 1, 3, 4 and 5, pp. 149, 151, 155, 156.



Statue of Hadrian



Fig. 8. The Sculptured Decoration of the Corselet

been made in a separate piece which had been inset in the neck socket. The arms also had been made separately and had been attached by dowels.

The water-channel in Section E was in process of clearance from the interior when the statue was discovered. Its position was ascertained to be beneath a house, adjoining the area on the north, which had not been expropriated. The statue was too large and heavy to be extricated through the channel, and it could not be excavated from above. Consequently it was left where it was found until the beginning of the season of 1932 when, after the removal of the house above it and the clearance of the terrain, it was eventually raised on February 9, 1932. It is now standing temporarily on a stone foundation beside the channel.



Fig. 9. The Left Side of the Statue

Although the head is missing this statue may with certainty be identified as Hadrian because of the similarity of its symbolical decoration to that on other statues of that Emperor. The closest replicas are a statue found in the exedra of Herodes Atticus at Olympia,¹ one at Kisamos in Crete,² one from Gortyna, now in the Museum of Candia,³ and one in the Museum of Antiquities at Constantinople which was found at Hierapytna in Crete.⁴ The position of the arms of the new example was evidently similar to that of the statue at Olympia, the arms of which are preserved. The left arm was raised and supported a spear, and the right forearm was extended. The figure is clothed in an undergarment which appears below the leather skirt. Over this is the decorated

¹ *Olympia*, III, Taf. LXV, 1; Text, p. 271.

² Savignoni in *Mon. Ant.* XI, 1901, pp. 306 ff., pl. XXV, 1.

³ Noted by Savignoni, *loc. cit.* p. 308, fig. 10.

⁴ M. Schede, *Meisterwerke der Türkischen Museen zu Konstantinopel*, vol. I, *Griech. u. röm. Skulpturen des Antikenmuseums*, Berlin, 1928, p. 16, pl. XXXIII. Fragments of a similar statue executed in fine style were found by Dr. O. Broneer in the Odeum at Corinth. They have recently been published by him in *Corinth*, Vol. X, *The Odeum*, pp. 125 ff., where references are given to related works.

corselet with its pendent lappets and the kilt made of strips of leather with fringed ends. The great cloak, the *paludamentum*, is caught on the right shoulder and thence passed, with rich heavy folds on the chest, over the left shoulder from which it falls down behind in a broad mass.

The corselet is decorated with figures in relief which are evidently imitative of richly ornamented bronze armor. The central group furnishes the keynote for the symbolical significance of the decorative theme. The goddess Athena, emblem of Athens, stands erect on the back of the wolf suckling the twins, the emblem of Rome, and the combination of these emblematic figures clearly characterizes Hadrian in his relation to the two cities, as benefactor of Athens and Emperor of Rome. Athena is represented in semiarchaistic style with the spear held in the upraised right hand and with the shield swung on the left arm. She wears a triple-crested helmet and has her hair arranged in two long braids. The aegis has the shape of a jacket, with the gorgoneion on the front and with serpents along the edge. Beside Athena are her attributes, the owl and the snake, which are supported by conventionalized tendrils extending from the cluster of acanthus leaves on which rest the wolf and the twins. Side tendrils of the acanthus serve pictorially to support winged Victories which approach Athena from either side with the purpose of crowning her with the wreaths held in their right hands. In the left hands they carry palm branches.

While the groups of figures on the front of the corselets of these statues of Hadrian are generally similar, minor variations show that they are not mere mechanical copies of a single prototype. On the statue at Olympia the positions of the owl and the serpent are reversed in their relation to Athena, and the folds of the cloak on the breast are quite different. Equally apparent variations may be observed on the other members of the group, especially in the method of handling the folds of the cloak.

Below the corselet is a double series of decorated panels in imitation of the bronze lappets of veritable armor (Fig. 8). The decorations are arranged according to the following scheme: In the upper series on the right side are the head of Ammon, an eagle, a human head, an elephant's head, and a rosette. On the left side there is one less lappet in this series than on the right because of the overhanging edge of the cloak (Fig. 9), and consequently the rosette is omitted. The lower lappets are decorated, on the right side, with a helmet, a lion's head, a rosette, and a pelta. On the left side the positions of the rosette and the pelta are reversed. The arrangement of these decorations, especially in the lower series, differs somewhat in the various related statues.

The central decoration of the upper and larger set of panels is the head of Zeus Ammon. This is executed in the crude style and the coarse workmanship which are characteristic of the relief sculpture of most of the Imperial statues. A notable exception to this rule is the figure at Corinth on which the relief decorations are carefully and admirably carved.¹ The panels on either side of the head of Ammon are filled with

¹ O. Broneer, *op. cit.* pp. 125 ff., figs. 118-120.

eagles with spread wings in an attitude of flight away from the centre, but with the head in each case turned back. Next in order come two heads in high relief represented in full profile, on one side to the right and on the other to the left (Fig. 10). The heads which occur regularly in this position on these statues are usually interpreted as



Fig. 10. The Head on a Lappet of the Left Side

gorgoneia, but the feminine characteristics are so little apparent that they have also been interpreted as heads of Hermes.¹ The head on the new statue has short hair which is bound by a fillet. The profile shows a type which is based on good Greek tradition, and there is nothing about the head itself which would warrant its inter-

¹ Cp. *Musée Imp. Ottoman, Cat. des Sculptures*, 1893, p. 18. This statement is corrected by Schede, *op. cit.* p. 18.

pretation as a Medusa rather than an Apollo.¹ But there is a conventionalized necklace about the neck with a loop in front, which seems to be a survival of the looped serpents about the neck of Medusa. In marked contrast to the workmanship of the human heads are the crude heads of elephants carved on the succeeding lappets on each side. The head on the left, near which the cloak came, is most carelessly rendered, with both ear and trunk ruthlessly clipped so as to fit it into a shallow panel.

The kilt is represented as made of leather strips, with fringes on the edges and on the bottom. The cloak hangs down behind so as to cover the entire figure, and the large expanse of blank surface is relieved only by a series of conventionalized folds. The elaborate decoration of the front of the statue is in strong contrast to the simplicity of the back.

The Emperor Hadrian was honored by the erection of many statues of him in Athens.² In the theatre of Dionysos alone there were twelve such dedications, one made by each tribe, and there is record of one in the Olympieion and of one in the Parthenon, but no reason exists to doubt that the statue found in front of the Stoa of Zeus is the one reported as standing there by Pausanias.³

¹ Dr. Broneer has pointed out that the corresponding head from the statue at Corinth is similar to a head of Apollo found in the theatre there, *op. cit.* p. 126.

² W. Judeich, *op. cit.* pp. 101 f.

³ I, 3, 2.

T. LESLIE SHEAR

THE TERRACOTTA FIGURINES

The terracotta figurines discovered during the first campaign in the Athenian Agora show a wide variety of types, both native and foreign. Despite their fragmentary condition, they indicate something of the history of the craft of the coroplast in Athens, a history hitherto little known. In view, however, of the likelihood of discovering much more material in the coming campaigns, this report must be considered as tentative. It is, in fact, merely a commentary on the Catalogue to which it is referred.

Stratigraphic evidence for dating the figurines is unfortunately slight. An examination of the material according to the levels of discovery indicates that most of the areas were disturbed in Roman times. This conclusion had already been reached from a study of the other material.¹ The pottery which was found with individual figurines often can be used as evidence for the general dating, though rarely for more specific chronology. A closer dating can be obtained only by the comparative method. First, the figurines may be compared with other dated examples. Secondly, the technical details, such as the clay, the paint, the surface treatment, may be compared with those of pottery and of lamps. In this field the Agora excavations afford unusual opportunities to the student of terracottas by providing much pottery and many lamps for comparative purposes.

Of approximately fifty terracottas, only four pieces are datable before Hellenistic times, and some twelve examples are to be assigned to the period immediately before the Christian era. Of the remainder the major part date as late as the third and fourth centuries A.D.

EARLY PERIODS

One of the finest fragments in the whole group is a portion of a head representing a satyr (981-P 150). The well-washed clay, with its traces of reddening, the fine black glaze, and the white paint resemble those of late sixth century vases from Athens. In addition, the shape of the fragment suggests that it comes from a plastic vase. A somewhat similar piece of "Boeotian clay" indicates the type.² The fragment of the figure of a horse (435-T 35) is also evidently to be assigned to an early date. The mould of a seated draped figure (630-T 44), Fig. 1, s, is stylistically assignable to the archaic

¹ I am much indebted to Dr. Thompson and Mr. Waagé for discussing the pottery with me and for many helpful suggestions.

² M. I. Maximova, *Les Vases plastiques dans l'antiquité*, Paris, 1927, II, pl. XLVII, 175.

period.¹ The proportions of the torso of a seated "doll" are certainly pre-Hellenistic (734—T 57),² Fig. 2, 2. In view of the long life of all these types, however, it is impossible to give a more exact dating than by periods.

HELLENISTIC PERIOD

The terracotta mould of a plastic vase in the shape of a knucklebone (430—T 30) can be dated in the third century B.C. (Fig. 1, 2). The type and the dimensions accord with

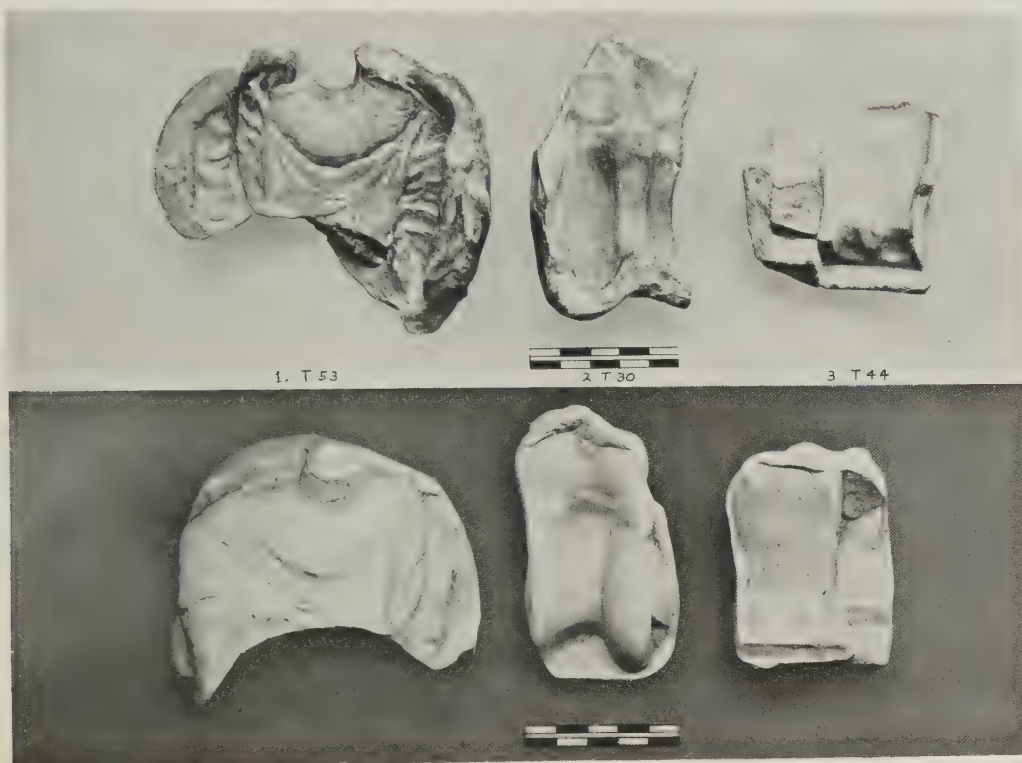


Fig. 1

those of three small vases, probably askoi, or lamp-feeders, in the National Museum in Athens.³ On one of these (National Museum, no. 2253), the ribbed handle is tied in a Herculean knot, which is a motif extremely common on Gnathia ware.⁴ The glaze, the handle, and the spout of the askoi are all of characteristic Gnathia types. From these

¹ Cf. F. Winter, *Die Typen der figürlichen Terrakotten* I, p. 44, no. 5.

² *Ibid.*, p. 165, nos. 4, 5.

³ F. Courby, *Les Vases grecs à reliefs*, Paris, 1922, pp. 222–3, National Museum, Room Γ', nos. 12289 (Boeotia), 2253–4 (Tanagra); G. Nicole, *Catalogue Vases d'Athènes*, supplement, p. 288, no. 1263.

⁴ E.g. *Corpus Vasorum*, *British Museum* I, IV D c, pl. 6, nos. 11, 15; pl. 7, no. 9.

parallels and because our mould was found with Hellenistic black glazed wares and with Megarian bowls, it can be dated in the third century. The significance of the inscribed Δ on the back is uncertain. Like ΔH on another mould (639-T 53), Fig. 1, 1, it may be the signature of a coroplast, or it is more probably merely a mark for the convenience of the workman. The presence of this mould in Athens suggests that the askoi were exported to Boeotia.

It is interesting to note that among the Agora figurines only one piece follows strictly the most popular Hellenistic tradition, which is exemplified especially in the



Fig. 2

terraccottas from Tanagra. This draped female figurine (365-T 9) illustrates a common fourth century type,¹ Fig. 2, 3. It is, however, rendered in a careless style that is attributable to the third century B.C. A finely characterized head of a female figurine (364-T 8), Fig. 3, 4, also found with much good third and second century pottery, is an interesting example of an Athenian version of a Tanagra type. This head is like one on a figure in the Loeb Collection² of which the proportions and the style suggest a date in the latter part of the third century. The size and the solidity of our head as well as the rather soft modelling, are also more advanced than those of the characteristic Tanagra specimens. Similarly, another charming female head (383-T 27), Fig. 4, 2, was found with good Hellenistic pottery. In its appealing grace it resembles a late third

¹ *Typenkatalog* II, p. 11, no. 1; p. 13, no. 6.

² J. Sieveking, *Die Terrakotten der Sammlung Loeb*, München, 1916, I, pl. 56.

century example in the Loeb Collection.¹ The clay seems to be Corinthian rather than Attic as it is found in a similar head in the Corinth Museum.² A later type (640—T 54), Fig. 4, 1, also found with Hellenistic pottery, is clearly of Attic manufacture. It shows the round face popular in the second century B.C.³ The incisive treatment of the hair in combination with the slovenly representation of the features is in accordance with the



Fig. 3

taste of the later Hellenistic period. A fragment (632—T 46), Fig. 2, 1, which was found in an Hellenistic deposit and a mould (639—T 53),⁴ Fig. 1, 1, both of which represent draped women, also show the style of the early Hellenistic period. The drapery is broadly modelled and the surface is left rather rough, as though the coroplast felt an artist's interest in exploiting his medium. The influence of contemporary sculpture may

¹ *Ibid.*, pl. 51.

² Corinth Museum, M. F. 1420.

³ Cf. A. Köster, *Die griechischen Terrakotten*, Berlin, 1926, pl. 97. Cf. also the heads on Pergamene sculpture.

⁴ Another mould with the same signature was found in the Agora in 1932 in a deposit not later than the third century.

be seen in these fragments.¹ More advanced in style is another fragment of drapery (641-T 55), Fig. 3, 5. The heavily rilled folds are characteristic of sculptural styles of the early first century B.C. as rendered in terracottas from Myrina and Delos.² Two fragments (428-T 28), Fig. 3, 2 and 3, of a seated draped figure show good late Hellenistic taste. Another piece of which the clay is like that from Asia Minor (434-T 34), Fig. 3, 1, is a later example of this same class.

Miscellaneous pieces, probably of the Hellenistic period, include a disk decorated with shells (439-T 39), Fig. 5, 2. It may represent shells for the toilet, such as were found in the graves of Myrina.³ The clay indicates that it is an importation. The crude



Fig. 1

representation of an animal, a mouse or possibly a dog, outstretched on an oval plaque (368-T 12), Fig. 5, 1, is an unusual type of uncertain date.⁴ Two plastic ornaments for vases are also included in the Catalogue: a clay shell (989-P 158) which was evidently the foot of a Megarian bowl⁵ and the defaced head of a satyr (985-P 154). The clay and glaze of the latter resemble those of Hellenistic lamps and of Megarian bowls. The

¹ Cf. the drapery and the locks of hair on the shoulder with those of Ge and of Athena on the Pergamene altar, *Altertümer von Pergamon* III, 2, pl. XII.

² Athens, National Museum, no. 5113 (Myrina), Delos Museum, no. A 312 α'.

³ Pottier and Reinach, *La Nécropole de Myrina*, pp. 245-6.

⁴ This may be a terracotta version of the marble statuettes such as are figured in C. C. Edgar, *Greek Sculpture*, Le Caire, 1903, pl. XVII, no. 27.520; G. M. A. Richter, *Animals in Greek Sculpture*, London, 1930, pl. LIII, fig. 169.

⁵ Cf. *B.S.A.* XXVI (1923-5), pp. 287 f.; fig. 4, p. 293.

milling at the edge indicates that it is probably a mask which was placed at the base of the handle of a Gnathia vase.¹ The Hellenistic braziers include two examples (982—P 151, 983—P 152), Fig. 6, 2, of the most common type representing a daimon of the cycle of Hephaistos wearing a pointed cap.² They are from the same mould and very possibly from the same vessel. Two other specimens (1062—P 189, 990—P 159) belong to the type of a bearded satyr,³ Fig. 6, 1. The mica and the clay of all these indicate that they are importations, like the numerous other specimens, from some large manufacturing centre, probably in Asia Minor.⁴



Fig. 5

ROMAN PERIOD

In Athens the Greek tradition continues well into Roman times. For the first two or three centuries after Christ the types do not appear to change very much. The same fact has been noted in Egypt.⁵ Technically Roman work betrays itself in the coarse clay, which is usually burned bright red or has a dusty yellow surface. The style and

¹ Cf. *British Museum Catalogue of Vases* IV, G 57; *Corp. Vas. Brit. Mus.* I, IV D c, pl. 5, nos. 7, 9, 11; pl. 6, no. 9.

² Conze, *Griechische Kohlenbecken*, *Jahrbuch* V (1890), pp. 118 ff., type I A, 1, pl. I, p. 138.

³ *Ibid.*, pp. 126—7, type III A, no. 324.

⁴ In the Museum of Delos alone I noted twelve large packing cases of braziers.

⁵ This statement is based on the evidence from Corinth as kindly given me by Dr. Broneer and on the study of material from Asia Minor, Delos, and other sites; for Egypt, Flinders Petrie, *Roman Ehnasya*, Egyptian Exploration Fund, London, 1905, pp. 26—28.

the finish are careless and dull. Among early Roman pieces may be placed the face of a large figure of a child (431-T 31), Fig. 7, 7, which resembles Pompeian work.¹ Another child's head (433-T 33) is a Roman version of the Hellenistic Eros type. An interesting early Roman piece is the small torso of a boxer in action (359-T 3), Fig. 4, 3. The ring at the shoulder is evidently the top of the *caestus*, the metal glove which was worn by Roman boxers.² The micaceous clay, the size, and the emphatic musculature of this



Fig. 6

piece are characteristic of work from Smyrna where similar statuettes of boxers have been found.³ The yellow clay and peculiar purplish paint of another fragment representing a seated child resting his hand on his knee (377-T 21) indicate that it is also an importation. The type is that of a figure which was found in a Roman grave in South Russia.⁴ Similarly, the clay and the glaze of a curious fragment (373-T 17),

¹ A. Levi, *Le Terrecotte figurate del museo di Napoli*, Firenze, 1926, p. 184, fig. 139.

² J. Jüthner, *Über antike Turngeräthe, Abhandlungen des archäologisch-epigraphischen Seminars der Universität Wien XII*, Wien, 1896, pp. 87-95.

³ *Ibid.*, p. 88; *Typenkatalog II*, p. 445, no. 8; p. 446, no. 5.

⁴ *Compte Rendu*, 1876, pl. VI, no. 6, pp. 206 f.

Fig. 7, 1, which was found with very late pottery do not resemble those of Attic vases or lamps. It is in type possibly one of those small groups of late Hellenistic and Roman times which often show a column or a post standing upon a pedestal in the background.¹

Red paint such as occurs on later Roman lamps betrays the late date of the fragment of a standing youth (370-T 14), which appears to be of a type which was found in Cyprus and in Italy.² The clay resembles that of Asia Minor. The fragment of the figure of a boy in a pointed cap (363-T 7), Fig. 7, 8, belongs clearly to a plastic vase like two in the Museum at Corinth.³ These vases represent two children kissing, probably slave boys, although the earlier examples of children in pointed caps have been interpreted as twin godlings.⁴ The fragment of another boy wearing a pointed cap (361-T 5) is covered with a red paint similar to that which is used on lamps of Type XXVIII.⁵ Similar figures were found at Sparta in a deposit dating after 250 A.D.⁶ Another was found in the Asklepion at Athens.⁷ Late lamps also take the form of a hooded boy.⁸ This type probably represents Telesphoros, the little attendant of Asklepios whose cult spread from Asia Minor or Thrace to Athens in the third century A.D.⁹ The style of this example and the fact that the eyes are not bored are indications that it is to be dated in the late third century A.D. It probably stood on a high base of the type of which a fragment was found in the Agora (631-T 45).

Related to this group is an interesting series of terracottas of crude style and workmanship. The types include male and female heads, grotesques, and animals. They are without published parallels, but similar pieces have been found at Corinth and in the Athenian Kerameikos.¹⁰ The Agora series begins with the fairly well modelled head of a female figurine (635-T 49), Fig. 7, 2, which is covered with red paint like that on the hooded child just mentioned (361-T 5). The thick white paint on the eyes is unlike any earlier paint, but it occurs frequently on terracottas from the Kerameikos which Dr. Kübler dates in the fourth century A.D. The type is given by a similar head of more advanced style (366-T 10), Fig. 7, 9. The following points are characteristic: a fat face with features set high, hair arranged in deep waves over the forehead, a ring around the head, a high and elaborate coiffure, and a convex mass of hair at the back.

¹ *Nécropole de Myrina*, pl. XX, no. 6; pl. XLIV, nos. 4 and 6.

² *Typenkatalog* II, p. 249, no. 1; p. 251, no. 7.

³ Corinth Museum, M. F. 7; Shear excavations, T 109-Tc 22. See *Hesperia* I, 1932, p. 61, fig. 6.

⁴ F. Marx, *Dioskurenartige Gottheiten*, *Ath. Mitt.* X (1885), pp. 81 ff.

⁵ Cf. *Agora Catalogue*, Lamps, L 114.

⁶ R. M. Dawkins, *Artemis Orthia*, London, 1929, pl. XLV, 1-4, p. 160.

⁷ J. Martha, *Catalogue des figures en terre cuite d'Athènes*, Paris, 1880, p. 31, no. 148.

⁸ *Ibid.*, no. 147, National Museum, Room I', case 86, no. 3333, case 85, no. 2503; Room Δ', case 136, nos. 15006, 3823, 5776; cf. no. 15073.

⁹ W. Wroth, *Telesphoros*, *J.H.S.* III (1882), pp. 283 ff. P. Perdrizet, *Les Terres cuites grecques d'Égypte de la collection Fouquet*, Paris, 1921, pl. LXXIII, nos. 271-3, p. 105. Daremberg and Saglio, *Dictionnaire des antiquités*, s.v. Telesphorus (Darier).

¹⁰ I am most grateful to Dr. Kübler for giving me the results of his study of the material from the Kerameikos, which are to appear shortly.

This type shows Graeco-Egyptian influence like the pottery of the same period.¹ By analogy with the pieces from Corinth² and the Kerameikos, the Agora examples may be assumed to have represented a seated or a standing woman, holding offerings or a child. Certain North African examples have been interpreted as Isis.³ The Egyptian connections of the Greek pieces may indicate the same identification for them. The degeneration of the type is traceable through certain crude pieces (634-T 48, Fig. 7, 11; 357-T 1) to absolutely barbaric examples (381-T 25, 360-T 4, 629-T 43, 376-T 20, 642-T 56,



Fig. 7

637-T 51, Fig. 7, 3). In the latter the features are rendered by deep gouging, which is a common mannerism on lamps of Type XXVIII.⁴ The linear style thus produced foreshadows the style of early Byzantine work.⁵

¹ K. Kübler, *Spätantike Stempelkeramik*, *Ath. Mitt.* LVI (1931), pp. 79 ff.

² Corinth Museum, M. F. 274, 329, etc.; Shear excavations, T 985-Tc 149.

³ R. P. Delattre, *Musée Lavignerie de St Louis de Carthage* II, Paris, 1899, pl. XI, nos. 3 and 10, p. 45.

⁴ O. Broneer, *Corinth, Terracotta Lamps*, pl. XVI, nos. 1167, 1177; pl. XVII, nos. 1244, 1250.

⁵ Cf. R. Delbrück, *Die Consulardiptychen*, Berlin-Leipzig, 1929, pls. 9; 24-5.

The male figures from the Agora are equally interesting.¹ According to Kübler, the type represents a priest of Isis. The shaved head and the facial type are similar to those from the Kerameikos (371-T 15, Fig. 7, 10; 638-T 52, Fig. 7, 6; 379-T 23; 380-T 24). Again the facial type resembles that of early Byzantine ivories.² Gross examples (735-T 58, 362-T 6) are similar to the worst female pieces and may be assigned to the late fourth century or to the early fifth century. Two heads must be classified as grotesques (432-T 32, 367-T 11, Fig. 7, 4), such as were also found in the Kerameikos. One fragment which apparently represents a similar face with matted locks of hair above it (372-T 16) resembles faces in the centre of lamps of Type XXVIII.³ A fragment of a lion mask (369-T 13) is like the late Roman masks from the Kerameikos.

Only four animal heads of this class have so far been found in the Agora. Two represent a ram (636-T 50, Fig. 7, 5; 382-T 26), one a sheep (375-T 19), and one a dog (378-T 22). They are all rendered by the gouged incisions that are characteristic of the technique of the late fourth century. Many similar examples were found in the Kerameikos and some are in the National Museum.⁴ A similar technique is observable in the plastic handles representing animal heads which occur on red pottery ornamented with white paint. The Agora excavations have produced several examples of these handles.⁵ Similar handles have been found in the Kerameikos, in other parts of Athens,⁶ in Eleusis,⁷ in Corinth,⁸ in Egypt,⁹ and in the Spartan deposit which is dated in the third century A.D.¹⁰

This survey of the terracotta figurines from the Agora teaches us something of the development of the taste of the common people of Athens. Even from the few early pieces which have survived we can see that hieratic tradition first dominated the craft of the coroplast. In the Hellenistic examples we find that craft first coming into an independent existence. The significance of the type dies out, and the subject is selected for its artistic interest. The coroplast treats his work, in its small way, from the same point of view as does the modern artist. To them both, style and manner are of paramount importance. We note also that at this time types are numerous and varied and that foreign types are imported or imitated. In the Roman period this same unity of culture continues. Even from our scanty material we can trace connections with

¹ There are also several examples in the Corinth Museum.

² Delbrück, *op. cit.*, pls. 11-12; 51-2.

³ Cf. *Agora Catalogue*, 855-L 289 and 856-L 290.

⁴ Room Δ', case 142, nos. 4457-8; case 138, no. 5942.

⁵ 751-P 84; 980-P 149; 984-P 153; 1010-P 171; 1011-P 172; 1012-P 173. See the article below on Roman pottery by F. Waagé.

⁶ National Museum, Room Α', case 156, no. 9940 (mould of a horse's head), 5471 (ram); Room Γ', case 56, no. 14762 A, and the heads of a horse, two rams, a boar.

⁷ Eleusis Museum, two rams' and two horses' heads, one lion(?).

⁸ Corinth Museum, C. P. 978, etc.

⁹ C. C. Edgar, *Greek Vases*, Le Caire, 1911, pl. XXVIII, 32.393 (ram).

¹⁰ *Artemis Orthia*, pl. XLVI, no. 8 (sheep?).

Smyrna, South Russia, Cyprus, Italy, and Egypt. These earlier Roman figurines merely repeat the classic tradition monotonously. By the fourth century A.D. the classic tradition is dead, and Orientalism invades Athens. Just before the establishment of Christianity a new energy breaks forth. Athens, ironically, begins to manufacture barbaric terracottas of vile workmanship. These terracottas reveal a certain vitality, but it is the vitality of a population of the soil, illiterate and sensitive to the fear of strange religions. The Athenian people become at last just another of the many Levantine slave populations to whom the only intellectual conceptions possible are those of superstition and of magic.

DOROTHY BURR

TERRACOTTA LAMPS

The catalogue of lamps for the season 1931 includes 317 items.¹ About one third of the lamps are complete. Of the many fragmentary lamps found, those have been entered in the catalogue which were sufficiently well preserved to admit of their being assigned to one or other of the classes established by Broneer in his study of the terracotta lamps from Corinth.² Broneer's classification, as the most comprehensive and generally satisfactory yet proposed, will be used as the basis for this preliminary study of the material found in the Agora. Any noteworthy variations from his types will be considered, and likewise any new evidence bearing on the chronology or history of the individual types. The detailed catalogue must be reserved for the final publication.

Since very little undisturbed stratification of classical Greek and Hellenistic times was cut through in the operations of this season, the lamps of those periods are comparatively few in number. Scarcely a single specimen is preserved intact, and only rarely has the context in which the individual lamp was found any value for dating. Fragments from lamps of Types I to VII, which Broneer assigns to the classical Greek period, number 51. Two of the earliest of these (L 17, L 19) are of interest because of their unbridged nozzles³ (Figs. 1, 1; 2, 1). Their bases are not set off from the walls. The rims are turned slightly in. At either side of the nozzle the rim bends outward in a well-defined angle. Both lamps are wheel-made, and are of Attic clay.⁴ The interior is covered with a good black glaze which is also carried in a narrow band around the lip of filling-hole and nozzle. The rest of the exterior is unglazed. This type, not found in Corinth, appears to have been common enough in Athens. Comparable specimens may be seen in the Akropolis Museum, and there are some close parallels among lamps found at Eleusis, which were probably made in Athens.⁵ One of our fragments was found together with Attic black-figured sherds; the other came from a disturbed context. It is probable that both are to be dated in the sixth century.

¹ The numbers preceded by L used in referring to lamps discussed in this article are the serial numbers employed in the current catalogue of the Agora lamps.

² *Corinth*, Vol. IV, Part II: *Terracotta Lamps* by Oscar Broneer, Cambridge, 1930. I am indebted to Dr. Broneer for many helpful suggestions in the study of the present group of lamps.

³ On the unbridged nozzle cf. Broneer, *op. cit.*, p. 5.

⁴ Hereafter it is to be understood that the clay is Attic unless otherwise specified.

⁵ Neither the Akropolis nor the Eleusis collection has yet been published. A lamp from the latter is illustrated in *J.H.S.* XXXI, 1911, p. 93, fig. 18.

Broneer's Type II is represented by a single fragment (L 251; Figs. 1, 2; 2, 2). It has a flat rim sloping gently inward and projecting slightly outward beyond the side wall.¹ The wick-hole encroaches on the rim. The interior, the rim, and the nozzle (both above



Fig. 1. Greek lamps

and below) were glazed. On the inside and on the inner half of the rim the glaze has turned red, probably because it was here cut off from air by another lamp stacked on

¹ Cf. Broneer, fig. 14, 12; Robinson, *Olynthus II*, fig. 297, nos. 1-5; *British Museum Catalogue of Lamps*, no. 171; pl. IX.

top of it in the kiln. This type is common among the lamps in the Akropolis Museum, and is dated by Broneer in the second half of the sixth century.¹

Another lamp (L 243) of unquestionably early date is illustrated in figures 1, 3 and 2, 3. The base rises slightly toward the center, but is not set off from the sides. The rim is broad and slopes gently in. The wick-hole encroaches slightly on the rim. The interior carries a black glaze which also covers the rim, except for a narrow reserved band, and the nozzle, both top and bottom. In type the lamp corresponds most closely with Broneer's Type IV. It was found in a burnt layer which underlies the foundations of the Royal Stoa, a layer which has yielded chiefly late black-figured pottery, but also

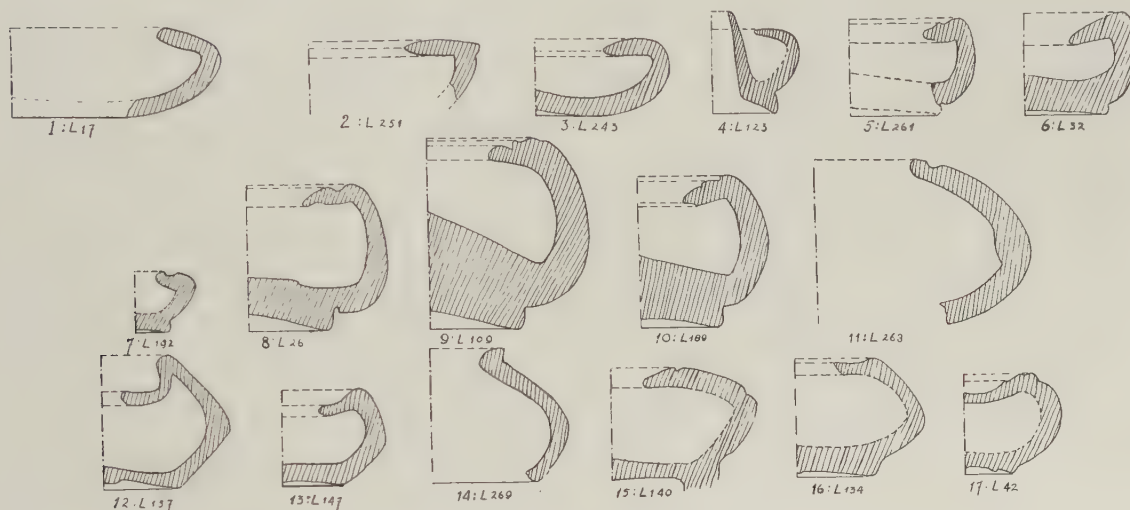


Fig. 2. Profiles of Greek and Hellenistic lamps (one half actual size)

the two Attic kylikes discussed on pp. 217 ff., so that the lamp is not later than the first quarter of the fifth century. Another fragment (L 162) shows much the same profile and the same scheme of glazing.

There are eleven other fragments (L 5, 37, 117, 123, 165, 210, 250, 257, 258, 259, 260) from lamps of Broneer's Type IV, marked in general by a low, open infundibulum, a rim plain and slightly incurved, a nozzle blunt and flattened, with comparatively large wick-hole. The clay in all cases is Attic. The glaze, which regularly appears on both interior and exterior, is still good but inclined to flake. On two specimens (L 259, 260) which show an exceptionally shallow, open infundibulum the glaze is firm but is mottled black and red. Eight pieces of this group were found in contexts which yielded late red-figured and early Hellenistic pottery. This suggests that Type IV was still popular in Athens through the fourth century.²

¹ *Op. cit.*, pp. 36 and 38.

² On the dating of Type IV cf. Broneer, *op. cit.*, pp. 41 ff.

One lamp of the same group (L 123) is marked by a central socket (Figs. 1, 4; 2, 4). The brown, flaky glaze on both inside and outside points to a comparatively late date for this specimen. Of another lamp (L 164), probably of much the same shape, there remain only the base and part of the socket. Its exterior is unglazed.¹

Of Broneer's Type V only four small fragments came to light (L 163, 169, 261, 262; Figs. 1, 5; 2, 5). These are distinguished by their almost straight walls, rilled rims, open infundibula, and by nozzles flat on top, pierced by comparatively small wick-holes. Two of them are covered with a rich black glaze. On the others the glaze is brown and flaky, possibly because of misfiring. None of these fragments was found in a dateable context.

One well-preserved lamp and five fragments may be assigned to Type VI (L 29, 32, 33, 82, 178, 263). They stand on well-defined bases, have comparatively straight walls, and broad, plain rims sloping gently inward. The nozzles are long and flat on top. In only one instance (L 32) does enough remain to afford a clue as to the handle. On this specimen it was a broad, horizontal band (Figs. 1, 6; 2, 6). The glaze in all cases is a firm, glossy black. That the majority of this group are late specimens of their type is indicated by the depth of their infundibula and by the comparative smallness of the filling-holes. From the evidence available at Corinth Broneer concluded that Type VI was in most common use during the second and third quarters of the fifth century.² Of our six pieces, four were found in a uniform deposit which yielded a mass of pottery. The earliest of this was red-figured ware from the end of the fifth century, the latest were "Megarian bowls" of an early type. It seems probable, therefore, that in Athens lamps of Type VI continued to be made into the early years of the fourth century. The excellent quality of the glaze on our specimens precludes for them, at least, a later date.

Another lamp (L 192), coming from the same deposit as the four above-mentioned of Type VI, is remarkable for its size, measuring only 0.015 m. in height and 0.031 m. in diameter (Figs. 1, 7; 2, 7). It stands on a raised base. The rim is broad, and marked by a deep rill. The nozzle is blunt and flattened. Inside and outside are covered with a buff-colored glaze, somewhat flaked. Such miniature lamps are frequently found attached in numbers to common supports, but this one certainly stood alone.

¹ The type of lamp with central tube was very wide-spread. Cf. Deonna, *B. C. H.* XXXII, 1908, pp. 140 ff., fig. 3; Robinson, *Olynthus* II, pp. 135 f., nos. 26-31; Broneer, p. 33. The central tube is probably the final stage in the development of the open center found so commonly in the early multiple lamps in the Akropolis Museum, and in the hundreds of so-called *kernoi* from the Sicilian sanctuaries of Demeter. Cf. for instance *Mon. Ant.* 32, 1927, cols. 369 ff., fig. 163. It is commonly supposed that such lamps with hollow tubes were intended to be set on pointed standards. But it should be observed that this would be a very unstable arrangement in the case of many broad and shallow early lamps. In one specimen of the present collection the central feature was turned solid on the wheel and pierced afterwards. The line of the aperture is so far from the vertical that were the lamp set on a peg it must have tilted at a dangerous angle. None of our specimens shows any trace of wear inside the tube, and, moreover, all are provided with perfectly good bases.

² Cf. Broneer, pp. 44 f.

This same deposit yielded eight of the twenty lamps which are to be assigned to Broneer's Type VII (L 26, 110, 116, 119, 181, 182, 188, 189). In the other cases the context afforded no definite chronological evidence. These twenty pieces are to be divided into two groups. Those of the First Group, eleven in number (L 6, 26, 116, 119, 158, 161, 188, 264, 265, 266, 267), are covered inside and outside with a lustrous black glaze (Figs. 1, ₈; 2, ₈), while those of the Second (Figs. 1, ₉; 2, ₉), numbering nine (L 81, 109, 110, 166, 181, 182, 189, 190, 214), are glazed on the inside only, save in one instance (Figs. 1, ₁₀; 2, ₁₀), where the rim, too, is covered. This type is perhaps the best known of all Greek lamps, and has been well discussed and illustrated in the publications both of Corinth and of Olynthus.¹ The lamps stand on well-defined bases rising slightly in the centre, the resultant upward projection often forming a cone of considerable height inside. In the earlier specimens the walls rise comparatively straight; in the later they show a marked inward inclination towards the top. In the First Group the rim is regularly marked by a single groove, the bottom of which is reddened with miltos. The filling-hole is surrounded by a round shoulder. In the lamps of the Second Group the side wall terminates at the edge of the rim in a low square shoulder within which a round shoulder surrounds the filling-hole. Two or three shallow grooves were run on the wheel around the outer shoulder. One specimen of the Second Group (L 189) has two rills on its rim and this rim, as noted above, is glazed. After the glaze had been applied it was scratched away in the bottoms of the grooves, leaving exposed the buff color of the clay. The nozzles in the two groups are similar, and resemble those of Type VI: long, straight-walled, flat on top, with small wick-holes. The handles of the First Group, in the instances where the pertinent part is preserved, were of the horizontal strap variety. Three specimens of the Second Group (L 81, 181, 182) were provided with handles of the same form. On two others (L 189, 190), minus handles, there is a pierced knob on the left side, which possibly served as a support for the index finger.² Another specimen (L 109) had neither handle nor knob. The clay of the First Group is the familiar red Attic, regularly covered both inside and outside with a firm, lustrous black glaze. In the Second Group was used a fine, non-micaceous clay, buff in color. The unglazed exterior in some instances probably received a light self-slip, and the surface was then polished. The result was a distinctive and pleasing finish. The evidence from the context in which our pieces were found, scanty as it is, agrees with Broneer's conclusion that "Type VII began in the fifth century and continued to be produced throughout the fourth."³ Our Second Group is probably later, in general, than the First. This is indicated by the appearance in the Second Group of the side knob, a common feature in types which are certainly later. It is also illustrated by the comparative numbers of the two groups found at Olynthus. While lamps of our First Group form the most

¹ Cf. Broneer, pp. 45 f.; Robinson, *Olynthus* II, pp. 137 ff.

² On the purpose of this knob cf. Broneer, pp. 6 f.

³ *Op. cit.*, p. 46.

numerous class of lamps found on that site, only two specimens of our Second Group came to light in the first campaign.¹ The Olynthians, at this period, seem to have been importing practically all their lamps from Athens. Our Second Group must have been a comparative novelty on the market at the time of the destruction of Olynthus in 348 B.C. Hence we may conclude that it began to be made at Athens around the middle of the fourth century. Its subsequent popularity is proven by the numbers of such lamps found in the recent excavations on the Pnyx.² The excellent glaze found on practically all specimens does not commonly appear on Attic pottery later than the fourth century.³

Broneer's Type IX is represented by the front part of a single lamp (L 268; Figs. 1, 11; 2, 11). This is of interest as being the earliest mould-made lamp in our collection. It was a large, handsome specimen, measuring ca. 0.085 m. in diameter. The body is watch-shaped, and the side walls terminate in a low ridge surrounding the filling-hole. The nozzle is deep; its top is flat, and is marked by a shallow groove along each side. Only the interior is glazed. Indeed, in clay and finish this lamp strongly recalls the Second Group of Type VII. The context in which it was found is of no value in fixing its date. Broneer placed the type in the early part of the third century.

Some nine lamps (L 145, 147, 157, 170, 179, 191, 269, 270, 271) may be placed together in a group which in its general features approximates the earlier specimens of Broneer's Type XVI, and finds parallels in many of the lamps discovered in the Esquiline Cemetery at Rome.⁴ They agree in their general features, and are undoubtedly closely contemporary. The fabric in all cases is the familiar red clay of Attica. The glaze resembles that commonly found on pottery of the period. It is thin, usually has a metallic sheen, frequently it has turned brown or red in the firing, and has almost invariably flaked to some extent. It was generally applied both to the inside and the outside. But in shape and profile this group exhibits a variety which could not be paralleled in a similarly contemporary group from earlier times. Thus, in pairs of lamps otherwise practically identical, we find that one stands on a high, sharply-profiled base, while in the other the side wall continues in an unbroken line to the bottom, leaving no separate base. The infundibulum is generally watch-shaped, but the side walls show a variety of profiles, some being sharply angular (L 157; Figs. 2, 12; 3, 1), others rounded (L 147; Figs. 2, 13; 3, 2). The rim is flat, and surrounded usually by an abrupt shoulder formed by the upward continuation of the side wall. The filling-holes vary in diameter from 0.015 to 0.02 m. The nozzles have still, in most cases, a flat top, but their sides are curved, and no longer perpendicular as in Types VI and VII.

¹ *Olynthus* II, p. 143, nos. 89 and 90.

² Cf. *Hesperia* I, 1932, pp. 183 f. The lamps will be included among the other small objects from this excavation to be published shortly.

³ Lamps of Type VII, Group 2, have been found also at Aegina (Thiersch, *Aegina*, p. 469, 16; pl. 130, 9) and at Lindos in Rhodes (Blinkenberg, *Fouilles et Recherches*, 1902-1914, Berlin, 1931, pp. 743 f., nos. 3198, 3199; pl. 151).

⁴ Dressel, *Annali dell' Istituto*, 1880, pp. 265 ff., pl. O; *C.I.L.* XV, ii, pp. 782 ff.

Of seven lamps enough is preserved to prove the original presence or absence of a handle. Four of these show no trace of a handle. The remainder were provided with broad, vertical loop handles. The side knob has now become a common feature, appearing six times. In three instances it is found on lamps which certainly had no



Fig. 3. Hellenistic and Early Roman lamps

handles, and here it is regularly pierced. Two of the lamps with handles carry small knobs unpierced.¹ A fragment from a distinctive lamp included in this group (L 269) is illustrated in figures 2, 14; 3, 3. The side wall is angular. The rim consists simply of

¹ This suggests that at least one purpose of the knob may have been to facilitate the suspension of the lamp while on sale in the shop.

the high shoulder formed by the upward continuation of the side wall. It is surrounded by a double band of triangular scales in low relief. The nozzle is long and pointed, flat on top, curving on the sides.



Fig. 4. Hellenistic lamp on standard (L 140)

Of the nine specimens, four (L 145, 147, 157, 170) were made on the wheel, five (L 179, 191, 269, 270, 271) in moulds. This shows that we are now at the turning point between these two methods of manufacture; a fact well illustrated by a pair of lamps (L 147, 191) almost identical in size and shape, one of which carries wheel marks, the other the finger prints of the moulder.¹ Six of the ten lamps (L 145, 147, 157, 170, 179, 269) were found in a deposit of Hellenistic times which yielded much fragmentary pottery. The bulk of this appeared to be of the second century B.C., although admittedly the chronology of the pottery of that period is far from being definitely known. The coins, almost without exception, were corroded to illegibility.

The later Hellenistic types are scantily represented. Four fragmentary lamps (L 47, 80, 184, 231) may be assigned to Broneer's Type XVIII. Three of these have ribbed rims; the rim of the fourth is plain. On one of the three the rim is surrounded by a raised flange, not moulded, but applied separately. The nozzle of this specimen is long and rounded. The other two nozzles which are preserved are triangular. The clay in all cases is pale red; the glaze thin and brownish.

A lamp which conforms most closely to Broneer's Type XVIII was provided with a

¹ Broneer placed this change of technique in the time of his Type XVIII, regarding as exceptional mould-made lamps of earlier types (cf. his *Terracotta Lamps*, p. 61). But the number of mould-made lamps in the group under discussion makes it probable that in Athens, at any rate, moulds were in common use at a somewhat earlier date.

tall standard (L 140; Figs. 4; 2, ¹⁵). The lamp proper is of normal size (0.10 m. long, 0.07 m. wide). The total preserved height of lamp and stand is 0.208 m. The side wall is angular, and the resultant broad shoulder above is decorated with alternating conventional wreaths and pear-shaped pendants in moulded relief. The rim proper is narrow, and set off from the shoulder by a single groove. The nozzle is long, with a rounded nose. Its top is flat, and shows a shallow groove along either side. The lamp was moulded in two pieces. Its support, likewise moulded in two pieces, consists of a hollow column, which exhibits a marked diminution from bottom to top. Its flaring base is broken away. On the front it is decorated by a shallow reeding which terminates toward the top in two horizontal raised bars. Above these is a transverse band of leaves and pear-shaped lobes, alternating. From either end of this band a single volute springs up to support the base of the lamp. The panel between the volutes is filled by a figure in relief, possibly a winged gorgoneion. Only the left side of the head is preserved.



Fig. 5. Rim patterns on lamps of Type XIX

The clay is buff in color, and covered, save for a broad band around the middle of the column, by a thin glaze mottled black and brown.¹

Of Type XIX, the so-called "Ephesus Type," there are three fragments (L 134, 272, 273). The best preserved is illustrated in figures 3, ⁴; 2, ¹⁶. It stands on a well-defined base; its side walls are sharply angular in profile; the rim is plain; the nozzle long; the handle of the vertical strap variety. The shoulder is decorated by a band of ovules terminating on either side of the nozzle in a cluster of dots (Fig. 5, ¹). On the base are the moulded characters $\text{IA}\Phi\text{H}$ (Fig. 11, ¹). The clay is dull red; the glaze thin, with a pronounced metallic sheen. The other two fragments show the more familiar ash-gray clay. Their shoulder decorations are illustrated in figure 5, ² and ³.

Two lamps perfectly preserved, and four others, fragmentary, belong to the familiar Type XX (L 40, 42, 45, 212, 274, 275). The infundibulum is small and comparatively deep, and marked by close-set globules (Figs. 3, ⁵; 2, ¹⁷). The narrow rim is set off by two or three raised lines from a plain, concave discus punctured by a single small filling-hole. The round-nosed nozzle is joined to the infundibulum by a double volute on either side of the throat. In the five instances where the handle, or some trace of

¹ For other examples of Greek lamps set on high standards cf. Deonna, *B.C.H.* XXXII, 1908, p. 143, fig. 5; *B. M. Catalogue of Lamps*, no. 137, fig. 25; no. 1411, fig. 337; no. 1412; Robinson, *Olynthus* II, p. 136, fig. 299, no. 99; Broneer, nos. 151–153, fig. 24.

it, has been preserved, it is of the vertical strap variety, marked by a single longitudinal groove. On the base of each lamp appears a large *alpha* with heavy apices within two raised rings (Fig. 11, 2). The clay is brick-red, and usually rather coarse; the glaze is thin and purplish red. This type has been recognized as being of Athenian manufacture, and its provenience is further confirmed by the discovery in the Agora of a fragment of a lower mould used in its manufacture (L 249, Fig. 6). The mould is coarsely made of the same red clay which appears in the lamps. The base is marked by the familiar *alpha*, and the walls by the punctures designed to produce globules on the lamp.¹ Broneer concluded that Type XX "belongs chiefly to the reign of Augustus, but may



Fig. 6. Fragment from a lamp mould
(L 249)

have continued in use throughout the first half of the first century A.D."² Only ten specimens appear in the Corinth catalogue. Broneer rightly inferred that these Athenian lamps could not, in Corinth, meet the competition of the imported Italian types of the first century A.D. which are represented there by scores of lamps and fragments. This speaks eloquently for the predilection which the new Corinthian settlers evinced for the products of their fatherland. The situation in Corinth is made still more striking by the fact that not a single specimen of such Italian lamps has come to light in the first season of the present excavation in Athens. It is clear that the Athenian potters were able to hold the home market, at any rate. This they probably did

by continuing to produce the cheap and not unattractive Type XX throughout the first century. The late survival of this type in Athens is proven by the discovery of two specimens (L 40, 42) in a layer of ashes overlying a tile-covered grave in Section E. In this same layer were found three lamps of Type XXVII, while a fourth of the same type had been placed inside the tomb. These lamps of Type XXVII can scarcely date before the close of the first century A.D., and their association with lamps of Type XX indicates that the latter type continued in use up to that time.³

Of Type XXVII we can show but seven specimens; four certainly from Class 2, and one from Class 3. Those of Class 2 (L 43, 44, 125, 135; Fig. 7, 2) have rays on their discs, grape clusters and vine tendrils on their rims. The handles in all cases are fully pierced and triply grooved. Of these four, two are large (0.078 m. wide) and two small (0.064 m. wide). Of the two larger, both the upper and lower parts were made in the

¹ For another mould of this type from Athens cf. *B. M. Catalogue of Lamps*, no. 1401, pl. XXXVII. A fragment of a similar mould was found in the recent excavation on the Pnyx.

² Broneer, p. 73.

³ These deductions regarding the history of Type XX are confirmed by the evidence from the Pnyx. Cf. also F. Miltner, *Gnomon*, 1932, p. 489,—a review of Broneer's *Terracotta Lamps*.

same or identical moulds. The upper parts of the two smaller also came either from one mould or from moulds derived from the same original. The lower moulds, however, were certainly different, and suggest that the lamps were made by different persons, for the base of one carries in *raised* characters the inscription ΕΛΠΙΔΗΦ|Ο[Ρ]ΟΥ, whereas on the base of the other, while the clay was still soft, was *incised* the signature ΕΥΚΛ|ΕΙΔΟ|Υ (Fig. 11, 4 and 5). The one specimen of Class 3 (L 41; Fig. 7, 1) has a broad



Fig. 7. Roman relief lamps

rim interrupted by panels. On the discus, in relief, is a leopard walking toward the right, bearing on its back a figure, probably Dionysus, who reclines, resting his left elbow on the beast's head, while with his right hand he grasps the drapery covering his lower limbs. On the bottom is an illegible inscription. A sixth lamp of this type (L 136) has a plain rim divided by two raised lines from a discus decorated by conventional leaves springing from the filling-hole as centre. Along with the two more perfectly preserved specimens of this type found in the ashes overlying the above-mentioned grave was a base (L 46) having the usual form of Type XXVII. On the little which remains of its side walls are traces of brown glaze. On the bottom, within a single

circular groove, is a signature, scratched while the clay was still soft: ΔION|ΥΣΙΟΥ (Fig. 11, ³). The clay of this group varies in color from greenish-yellow to pinkish buff—precisely the range of shades which one finds in the many lamps of this type discovered in Corinth. The fabric in all cases is thin, light, and unglazed. Broneer regards Type XXVII as a Corinthian product, and it is altogether probable that our specimens were imported from Corinth. According to Broneer, lamps of this type were being made throughout the second century A.D.¹ The present excavation has provided no evidence of chronological value.

Of all the lamps found this season, over two-thirds (214) belong to Broneer's Type XXVIII. But since our collection presents few novel features, it may be treated summarily in this preliminary notice. For a more detailed consideration of this type the reader is referred to Broneer's discussion, and to the impending publication by Dr. Karl Kübler of the specimens found in the excavations in the region of the Dipylon.²

Type XXVIII is a development of Type XXVII. In our collection, however, there is a considerable gap between the two types, inasmuch as our specimens of Type XXVIII are late examples of their kind. Both in artistic conception and actual workmanship they fall far short of the lamps of the earlier type.

The rim patterns, for instance, show little affinity with those found in Type XXVII. The most obvious survival is a wreath of leaves, sometimes intermingled with clusters of grapes, reminiscent of the Second Class of Type XXVII. This motive occurs twenty-one times. In some sixteen instances the rim is divided into panels by transverse bands of herring-bone, replacing the raised knobs of the earlier type (Fig. 8, ³ and ⁵). Where this panelling occurs, the plain surface is sometimes further ornamented by small, impressed circles, or, in one example, by a row of double spirals. The rims of five lamps are marked by two or three rows of concentric dots. The wavy line pattern covers twenty-seven rims (Fig. 8, ¹). But by far the most common motive (sixty-nine instances) is a band of incised herring-bone, usually set between two deep grooves (Fig. 8, ² and ⁶).³

One quarter of the discs present a plain concave surface, usually round, occasionally almond-shaped. A couple of them are square. The most frequent discus ornament is the simple rosette, which occurs sixty-three times (Fig. 8, ¹). Its petals vary in number from eight to nineteen. Occasionally their tips are pointed, and sometimes they are twisted to produce a spiral effect. Rays, either straight or similarly twisted, appear nine times. A more attractive alternative is the pecten shell, but it is limited to two

¹ Broneer, pp. 95 f.

² I am greatly indebted to Dr. Kübler for the opportunity of examining the material from the German excavations, and of discussing our common problems with him.

³ For the rim patterns of Type XXVIII cf. Broneer, pp. 104 f, fig. 48. In the great number of lamps of this type found in the cave at Vari, the herring-bone pattern occurs on the rims of about one-half the specimens. The next most common motive is the wavy line pattern. Cf. Bassett, *A.J.A.*, 1903, pp. 342 f.



Fig. 8. Late Roman lamps

specimens (Fig. 8, 2). About one-fifth of the discs are ornamented with figures in relief other than the Christian symbols. In most cases these figures are executed in the crudest possible manner. The outlines became more and more indistinct as the process of making new moulds from lamps was repeated time after time. This necessitated the retouching of the features in the mould, while its clay was still soft. Hence the figures are either dim to illegibility, or else are marred by the ridiculous distortion resulting from the deep incisions of the retouching tool. Of mythological subjects, Eros was the favorite. He appears eleven times, on four occasions with a lyre (Fig. 8, 5),¹ twice with Pan's pipes.² One discus is occupied by a standing draped figure, probably male, facing front, holding in the right hand a tall palm branch which rests on the ground (Fig. 8, 7). The left hand is held to the hip. Features and dress are rendered very crudely. The palm branch probably indicates that the figure represents a Christian martyr.³ The gladiatorial combat, so popular on lamps of Type XXVII, occurs only once (Fig. 8, 4). On another discus, two figures seated facing each other are engaged in some game, perhaps chess. In three instances the entire discus is occupied by a mask. Perhaps the most successful motive was the boukranion, which, in the schematic form employed, lay more within the capabilities of the artist potter (Fig. 8, 3).⁴ There are ten examples. Of other animals, the bear appears five times, once accompanied by the inscription $\Phi\text{ΟΒΟ}\Sigma$;⁵ the lion four times. There is one pair of fish, and one single fish; a bird, and two amphoras. In four instances the filling-hole is bordered by a raised crescent. Eleven discs are marked by the Christian cross, of which the bars are plain, jewelled, or hatched. In ten other instances the symbol is converted into the monogram of Christ by the addition of the bow of a *rho* to the top of the vertical member (Fig. 8, 6).

The nozzle shows little variety. It is ordinarily blunt and rounded, and set off from the rim by one or two incised lines on either side.⁶ The air hole in the throat is an almost unailing feature. In some late examples it attains the size of the filling-hole. Usually a single filling-hole appears in the middle of the discus; occasionally it is supplemented by two to four others placed around it.

The handle was regularly moulded with the upper part of the lamp. It is decorated by two or three deep grooves, and occasionally by a band of hatching on its front. In only one instance is it completely pierced; in several cases partially. Ordinarily it appears merely as a heavy knob.

The bases show the usual markings of the type: one or two concentric circles occasionally punctuated by small impressed circles. Sometimes the bounding lines are heart-shaped. In some thirty-five instances a palm branch is incised within the line or

¹ Cf. Broneer, no. 1124; pl. XV.

² *Idem*, nos. 1134–1147.

³ I am indebted for this suggestion to Mrs. Grace Hollis of Princeton.

⁴ Cf. Broneer, nos. 1301–1307, 1411.

⁵ Cf. *idem*, no. 1250; Bassett, *A.J.A.*, 1903, p. 344.

⁶ Cf. Broneer, fig. 49, nos. 1–4.

lines. A cross appears twice. Thirty-eight bases carry lettered signatures, reproduced below in the list of inscriptions.

The clay is the typical variety used in the Athenian Kerameikos in later times. It is identical with that found in lamps of Type XX, an Athenian product, and in factory discards of Type XXVIII found in the German excavations at the Dipylon. The color varies from a pale buff to a brick red. The clay was not well washed, and so contains many particles of grit and soil. Very seldom does a particle of mica appear. Defective firing often resulted in a mottled red and black effect. The majority of the lamps are covered by a thin red glaze, which has frequently assumed a purplish sheen.

The great majority of the lamps of this type were found in the lowest stratum overlying the ruined foundations of the Royal Stoa. This same stratum also yielded a great number of coins, almost exclusively of the fourth century A.D., and chiefly of Constantius II or later. Consequently it would appear that the Stoa was dismantled in whole or in part in the course of the fourth century, and the lamps were the property of the private families which settled on its site. Broneer concluded that Type XXVIII "continued in use from the middle of the third century until the beginning of the fifth."¹ It would appear, then, that our lamps must be late specimens of the type. This is certain on the evidence of the lamps themselves: the unpierced handles, the degenerate and carelessly executed discus reliefs, the frequent occurrence of the Christian symbols. The inscriptions, too, point in the same direction. There is a notable absence of signatures of known potters, e.g. Preimos, Naumachios, and Eutyches, who were producing while the type was still young.² Our commonest signatures: KY, CT, and XIONHC, are also the commonest on the lamps from the cave at Vari, which are dated by the coins found with them to the fourth century.³ It follows that the majority of our group belong to the same century, and to its later part.

Two large suspension lamps, such as those which Broneer has grouped together in Type XXX, Class 2, deserve a word of notice. One of them (L 244; Fig. 9, ₁) has two nozzles set on opposite sides of the infundibulum.⁴ From the centre of the discus rises a pierced, vertical handle, triply grooved. The slight depression surrounding it is punctured by a filling-hole on either side. Bounding this depression is a narrow band of herring-bone design. Each of the throats is marked by a pair of double volutes, and an air hole. In the other lamp (L 129; Fig. 9, ₂), twelve nozzles are set about a round infundibulum.⁵ A pierced, vertical handle with four grooves rises from a central depression. On either side of it is a filling-hole. Around the depressed area is a broad band of herring-bone, and a narrow, plain, raised band. Resting on this band as base is a group of three incised semicircles bounded by a tangent on either side, placed between each pair of

¹ Cf. Broneer, p. 114.

² Cf. Broneer, pp. 111 f.

³ Cf. Bassett, *A.J.A.*, 1903, pp. 346 ff.; 335 ff.

⁴ Length 0.181 m.; width 0.108 m.; height 0.048 m., height with handle 0.074 m.

⁵ Diameter 0.217 m.; height of infundibulum 0.059 m.; total height 0.083 m.

nozzles. Each nozzle, too, has its individual air hole. On the bottom, within three deep, concentric grooves, is a large letter *alpha*, with broken bar and apices (Fig. 11, 27). This lamp, like the other, is made of red Athenian clay, covered by a thin, red glaze. Close similarity in general form and technique make it clear that these lamps are contemporary with those of Type XXVIII.

Broneer's Type XXXI is represented by two complete lamps and three fragments (L 114, 148, 223, 227, 313). These exhibit the characteristics noted by Broneer: broad

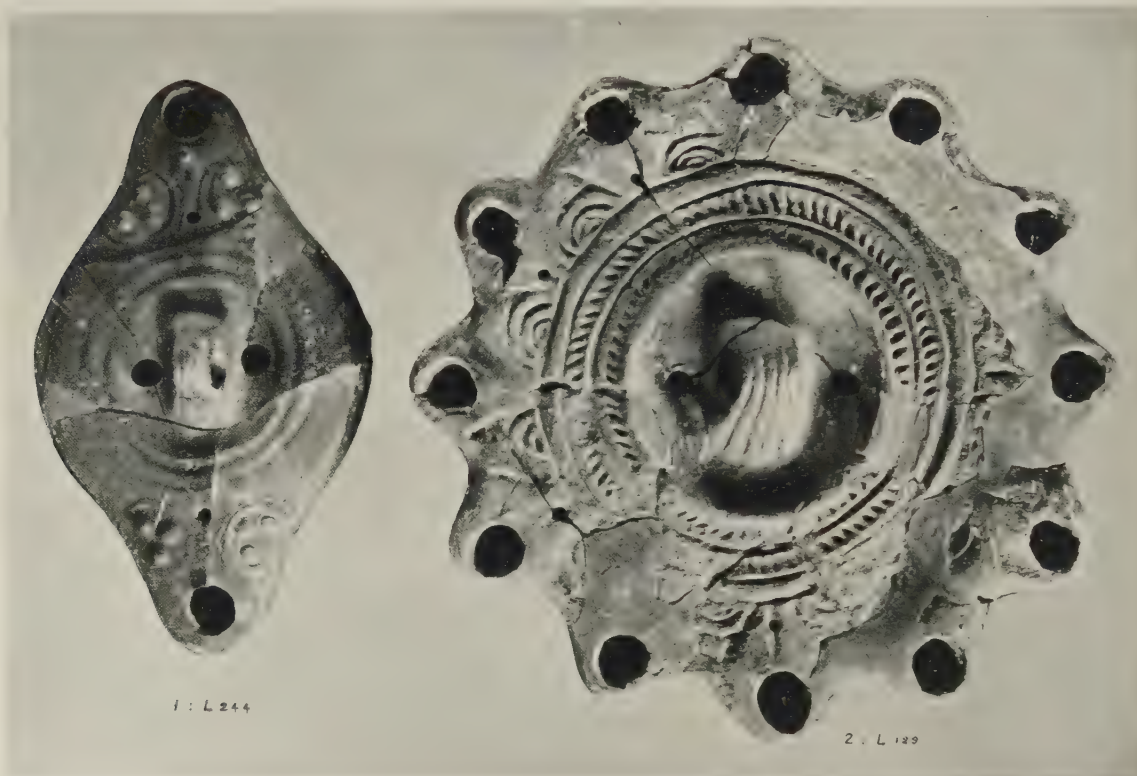


Fig. 9. Two late Roman suspension lamps

rim with intricate decoration, thin handle, unpierced and ungrooved, elongated nozzle, with a shallow channel connecting discus and wick-hole. One of the complete specimens (L 148) carries a Christian monogram in the shape of a Latin cross with a bow on the vertical bar. On the other is a seated lion facing right (L 227; Fig. 8, s). This lamp is of interest inasmuch as it is one of the few of Type XXXI to be inscribed. The signature *XIONHC* stamped on its base (Fig. 11, 28) is also one of the commonest names appearing on late lamps of Type XXVIII. The two complete lamps, and one of the fragments, are of the typical Athenian clay so common in Type XXVIII, and these were undoubtedly of local manufacture. All three are unglazed.

The clay of one of the remaining fragments (L 114; Fig. 8, 9) is a bright red in color, and is covered with a thin, red glaze. It shows evidence of more thorough washing and better baking than the clay of the other specimens, or of the average lamp of Type XXVIII. Unfortunately, only the back part of the lamp survives. It stood on a low base ring from which a raised band ran up the back of the infundibulum to the base of the handle. The handle, as usual, was thin and solid. The rim is decorated with alternating circles and triangular leaves in low relief.¹ In the making of the mould these figures were probably impressed by individual stamps. The discus, too, carried some relief of which there remain only three miniature horseshoes opening outward, set on the arc of a circle.

The superior execution of the decoration, combined with the peculiar quality of the clay, suggests a foreign origin for this specimen. This probability is increased by the presence of the base ring, a feature which does not appear on lamps of Type XXVIII, nor on the certainly Athenian-made specimens of Type XXXI. It is altogether unlikely that the use of a base ring was revived by the local potters at this late date. Similar differences of clay and technique in lamps of this type are apparent in the collections found in various places, e.g. Corinth, the Athenian Kerameikos, Syracuse, Alexandria. The typical features of the specimens from these widely separated points are so constant as to make it probable that the type originated at some one place from which the lamps were exported widely, soon to be copied in an inferior style by the local craftsmen of various parts. So many lamps of this class have been found in North Africa that the term "African lamp" has been applied to them in general, but it is not at all certain that the type originated in North Africa. That region appears to have imported the greater part of its lamps, and lamp moulds have rarely been found there.² A considerable number of lamps of this type have been and continue to be found in and around Alexandria.³ In this connection it is significant that the one imported specimen of the present collection seems identical in clay and glaze, and in the technique of its ornamentation, with a late variety of pottery well represented in the Agora excavations, and recently identified as of Egyptian origin by Dr. Karl Kübler.⁴ On the other hand, a serious objection to regarding Alexandria as the distributing centre for the whole Mediterranean region must be admitted in the absence of lamps of this type at other Egyptian sites.⁵ But it is probable that the lamp-making industry was highly localized in Egypt, each district supplying its own wants. Nor is it likely that exportation from

¹ For the combination of circles and triangles as rim decoration on lamps of this type cf. *Fouilles de Delphes* V, p. 193; figs. 843, 849, and 852.

² Cf. Doublet and Gauckler, *Musée de Constantine*, Paris, 1892, p. 60; Durry, *Musée de Cherchel*, Paris, 1924, p. 46.

³ Cf. Breccia, *Le Musée Gréco-Romain au Cours de l'Année 1922-23*, Alexandria, 1924, pp. 25 ff.

⁴ *Ath. Mitt.* 56, 1931, pp. 75-86.

⁵ For example at Ehnasya (cf. Petrie, *Roman Ehnasya*, London, 1905, pp. 4-14); or at Canopus (cf. Breccia, *Monuments de l'Égypte Gréco-Romain I: Le Rovine e i Monumenti di Canopo: Teadelphia e il Tempio di Pnephros*, Bergamo, 1926, pp. 72-77).

the common centre, wherever we place it, continued for long. The local potters soon copied the advantageous features, and so recovered the market for themselves.

The small number of Byzantine lamps found this season is in keeping with the paucity of Byzantine coins and pottery. The fragmentary lamps discovered are of a fairly



Fig. 10. Fragments of Byzantine lamps

uniform type: all were equipped with a tall standard rising from a saucer-like base, and the majority were provided with a vertical loop handle attached above to the bowl of the lamp, and below to its standard. In five instances (L 149, 186, 218, 316, 317) the upper part is preserved, in two (L 314, 315) the lower (Fig. 10). In all cases the oil reservoir is open, and the wick rested simply on a pinched-in part of its wall. At least three of the lamps had superimposed bowls. From the centre of the lower bowl a stout, column-like support rose to carry the upper. The standards are very heavy, and regularly have only a slender hollow in their middle. The clay is a yellow buff in color, extremely

coarse, and full of grit and soil. Only the interior of the oil reservoir is glazed, though the glaze has sometimes splashed down over its exterior as well. One of the lamps carries a rich, brown glaze; two others a pleasing green. In these three cases the glaze was applied over a thick coat of white sizing. Three other lamps show inferior black and brown glaze. This group approximates Broneer's Type XXXVI, which he dates after the tenth century.¹ It is probable that such lamps continued in use into Turkish times.

The most striking impression gathered from this rapid survey is, perhaps, the success with which the Athenian potter held the home market throughout the centuries. We have noted only an occasional import in the Hellenistic period. Again, in the late first and early second centuries A.D., the Athenian product yielded the market to a Corinthian lamp of exceptionally high quality. In the fifth century, also, it would seem that the Athenians imported a few finer lamps than could be bought at home. But in general the skilful work of the Athenian craftsman, and his ability to produce new and better types, guaranteed the popularity of his product at home, a popularity which was established throughout Greece, as has been shown by excavations outside of Athens from Leukas to Aegina, from Corinth to Olynthus. It is hoped that the continued excavation of the Agora will gradually reveal the full story of the lamp industry in Athens.

SIGNATURES

The signatures are reproduced in actual size in figure 11. Where the identical signature occurs on several lamps of the same type, only one representative specimen is illustrated.

Type XIX	L 134	ΙΑΦΗ	in raised characters.
Type XX	L 40	A	
	42		
	45		in raised character.
	212		Cf. <i>B. M. Catalogue of Lamps</i> , no. 771;
	274		Broneer, nos. 372-381.
	275		
Type XXVII	L 46	ΔΙΟΝΥΣΙΟΥ	Cf. <i>B. M. Catalogue of Lamps</i> , no. 1207.
	L 125	ΕΛΠΙΔΗΦΟ[Ρ]ΟΥ	Cf. <i>Ath. Mitt.</i> 26, 1901, p. 58; <i>B. M. Catalogue of Lamps</i> , no. 1210; a lamp in the Louvre, no. E.D. 1739 (quoted by Broneer, p. 249).
	L 44	ΕΥΚΛΕΙΔΟΥ	Cf. Broneer, no. 1379.
Type XXVIII	L 11	A	
	48		
	65		Cf. <i>A.J.A.</i> , 1903, p. 349, no. 24;
	68		Broneer, <i>Index of Inscriptions</i> , s. v.
	96		
	305		

¹ *Op. cit.*, pp. 124 f.



Fig. 11. Lamp signatures

Type XXVIII	L 92	ΑΓΑ	Cf. <i>Eph. Arch.</i> , 1906, p. 113: ΑΓΑΠΙΟΥ; Broneer, no. 1374: ΑΓΑ[ΘΟΥ.
	L 77	Δ	Cf. <i>A. J. A.</i> , 1903, p. 349, no. 25; Broneer, nos. 799, 986, 1049, 1375.
	L 138	ΕΥ	Cf. <i>A. J. A.</i> , 1903, p. 346, no. 5; Broneer, <i>Index of Inscriptions</i> , s. v.
	L 57	ΕΥΔΩ(ΡΟΥ)	Cf. <i>A. J. A.</i> , 1903, p. 346, no. 6; Broneer, no. 1020.
	L 155	ΕΥΚΑΡΠΟΥ	Cf. <i>A. J. A.</i> , 1903, p. 346, no. 7 b; <i>Eph. Arch.</i> , 1906, p. 113; Broneer, no. 979.
	L 241	ΘΕΟΔΟΥΛΟΥ	Cf. <i>Eph. Arch.</i> , 1906, p. 113; Broneer, <i>Index of Inscriptions</i> , s. v.
	L 8	ΙΛΑΡΟΥ	
	L 56	Κ	Cf. <i>A. J. A.</i> , 1903, p. 349, no. 27; <i>Eph. Arch.</i> , 1906, p. 114; Broneer, <i>Index of Inscriptions</i> , s. v.
	L 13	ΚΥ	Cf. <i>A. J. A.</i> , 1903, p. 347, nos. 11, 12 (ΚΥΡΑΚΟΣ); <i>Eph. Arch.</i> , 1906, p. 113; Broneer, <i>Index of Inscriptions</i> , s. v.
	67		
	276		
	L 34	ΝΕ	
	L 69	ΣΤ	Cf. <i>A. J. A.</i> , 1903, p. 348, no. 17 a; <i>Eph. Arch.</i> , 1906, p. 114; Broneer, <i>Index of Inscriptions</i> , s. v.
	73		
	280		
	284		
	L 304	ΣΤΡΑΓΟΛ[Α]ΟΥ	Perhaps an orthographic error for the following name.
	L 277	ΣΤΡ[Α]ΤΟΛ[ΑΟΥ]	Cf. <i>A. J. A.</i> , 1903, p. 348, nos. 17 b and c: ΣΤΡ and ΣΤΡΑ; Broneer, nos. 946, 1133, 1397: ΣΤΡ.
	L 144	ΣΩΤΗΡΙΑ	Cf. <i>A. J. A.</i> , 1903, p. 348, no. 20: ΣΩΤΗΡΙΑΣ; <i>Eph. Arch.</i> , 1906, p. 113: ΣΩΤΗΡΙΑΣ and ΣΩΤΗΡΙ; Broneer, no. 953: ΣΩΤΗΡ.
	L 113	ΣΩ	Cf. Broneer, <i>Index of Inscriptions</i> , s. v.
	L 101	Τ	Cf. <i>A. J. A.</i> , 1903, p. 349, no. 29; <i>Eph. Arch.</i> , 1906, p. 114; Broneer, <i>Index of Inscriptions</i> , s. v.
	104		
	L 72	Υ	
	L 14	ΦΗ	Cf. <i>A. J. A.</i> , 1903, p. 348, no. 22; Broneer, no. 1032.
	L 1	ΧΙΟΝΗΣ	Cf. <i>A. J. A.</i> , 1903, p. 348, no. 23; <i>Eph. Arch.</i> , 1906, p. 113; Broneer, <i>Index of Inscriptions</i> , s. v.
	115		
	L 215	ΥΥ	Perhaps ΣΤ preceded by a palm branch.
Type XXX	L 129	Α	
Type XXXI	L 227	ΧΙΟΝΗΣ	

HOMER A. THOMPSON



Fig. 1

TWO ATTIC KYLIKES

Among the earliest finds of the Agora excavation are two cups, one red-figured, the other painted on a white ground, distinguished both by their intrinsic interest and by the circumstances of their discovery.¹ Let us look first at the red-figured kylix (Figs. 1-4).² Though mended from many fragments and lacking besides smaller bits the upper portions of four out of the seven figures of the exterior, it still preserves the essentials of its three closely related scenes. Within (Fig. 1), a young soldier, in profile to the right, pours a libation at an elaborate palmette-topped altar. His eye is drawn in full with the pupil set so far back that his glance seems to fall over his shoulder and not upon his outstretched offering. He wears, in addition to short chiton and corselet, an himation with bordered ends, folded scarf-wise. Greaves, crested helmet, spear, and a shield which rests against the medallion edge behind him, complete his equipment. Framing the scene is a border of maeanders broken by alternating cross squares and saltire crosses. The outlines, here as on the outside of the cup, are drawn with fine relief contours;³ dilute glaze is used sparingly for details.⁴ A meaningless inscription, $\Lambda\Lambda\Xi$, once painted over the hard black glaze, now shows faintly grey against the lustrous ground, like the smoke which rises from the altar.

On the exterior, two reserved stripes run round the cup beneath the scenes.⁵ Below, the curve of the foot is broken only by a shallow step near the outer edge of the base (Fig. 3). The resting surface, narrow and thin, is marked off on the under side by the first of the concentric bands which decorate the unglazed clay (Fig. 2).

¹ In this study, my debt to Professor J. D. Beazley is apparent. I wish also to thank Professor George Oikonomos for the facilities afforded me for examining the white-ground cups in the National Museum in Athens. To Mrs. Edith Hall Dohan and to Professor George H. Chase I am indebted for kind and helpful criticism; to Miss Virginia Grace for a careful re-examination of the white-ground cup in the Agora; and to Dr. Homer A. Thompson for his kindness in going over the evidence from the excavation.

² Inv. 393-P 42.

Height 0.098 m., diameter of base 0.089 m., diameter of medallion 0.128 m., estimated diameter at lip 0.235 m.

³ Hair and beard outlines, on the exterior, are reserved.

⁴ For interior modeling, for the stains on the altars, and their decoration, for the ankle bands, for one of the straps of the shield; on the exterior for the folds of the chiton of the seated figure, for his phiale and the wine that pours from it. Of the painted plectrum cord, the wine pouring from the oinochoe, and the tasseled cord which tied the hair of the bearded standing figure, only the shadow remains.

⁵ Reserved also are the insides of the handles, the handle-spaces to the rim, the outer edge of the foot, and a line at the top of the shallow step.

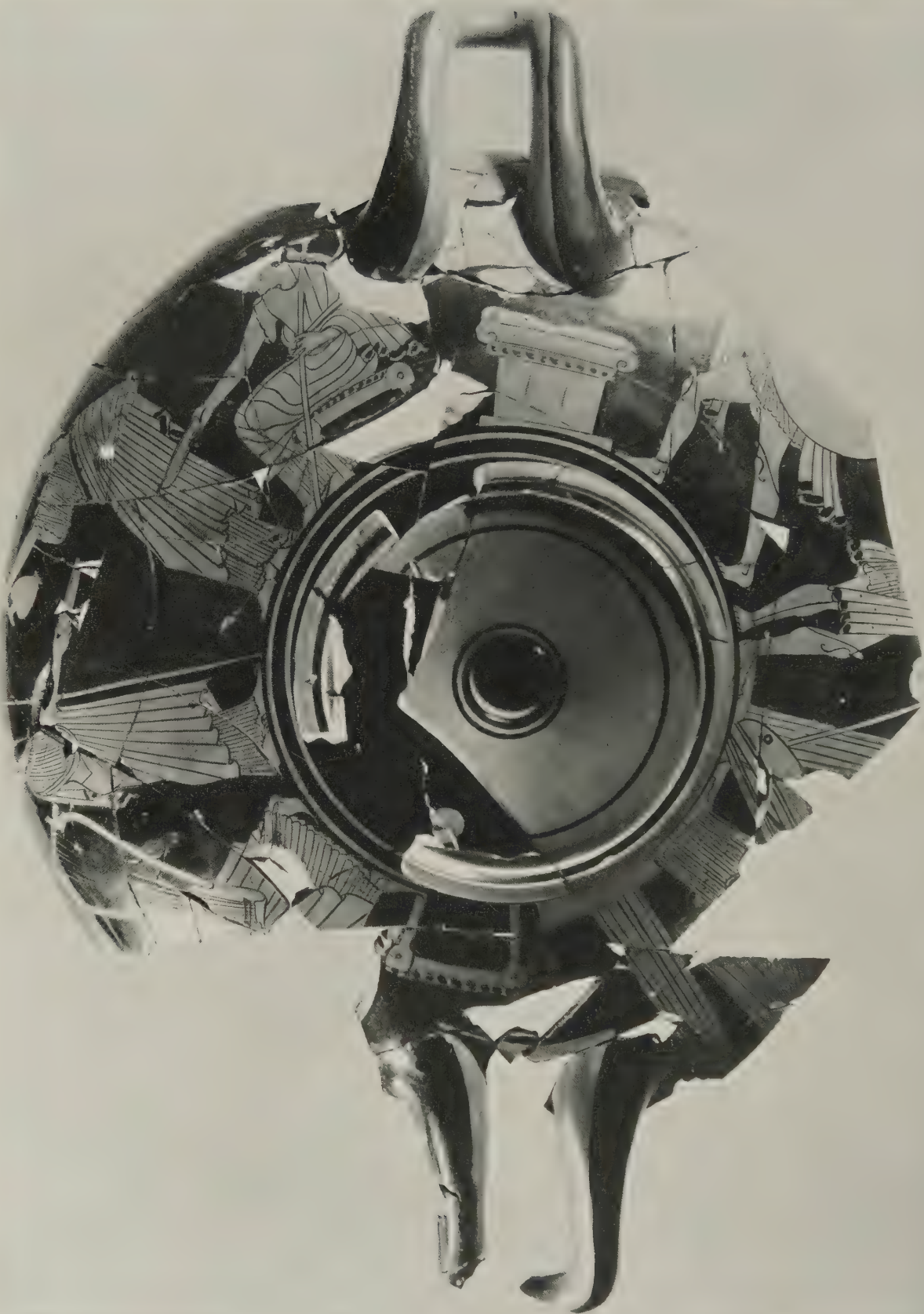


Fig. 2

The action is separated into two scenes by a flat-topped altar beneath one handle and by a stool beneath the other. Of the first of these scenes (Fig. 2), only the lower parts of the figures, two soldiers clad like the one on the medallion and a third personage in long chiton and bordered himation, probably a woman, are preserved. One warrior strides left toward the handle-space with a shield on his left arm and his right arm upraised. He seems ready for battle, or for the preliminary sacrifice. Not so the second soldier who occupies the centre of the scene. He turns to the right toward the woman who stands before two fluted columns. From the

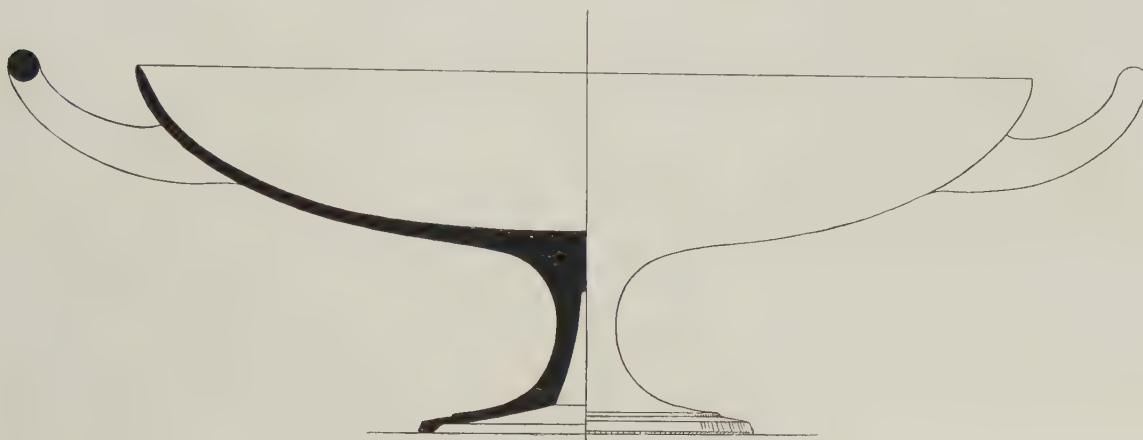


Fig. 3. Profile of Red-figured Cup

building thus indicated she has brought his shield. It, together with the butt of the spear on which he leans, rests on the ground beside her, in front of the column which separates the two figures. Before long this soldier too will be fully armed and on his way.

On the other side of the cup (Fig. 4) four persons, all wearing long chitons and himatia, are gathered together to pour a libation. The upper part of the left-hand figure who turns away, lyre in hand, toward the stool beneath the handle, is missing, as is part of the head of the seated figure at the extreme right, but otherwise the scene is well preserved. Toward the centre, a bearded man, facing right, holds in his left hand a striped lotus-tipped staff and in his right a phiale. Facing him, and filling this phiale from her oinochoe, is a girl with her hair in a sakkos. Behind her, seated on a stool with a striped cushion, a man with short-clipped beard and bald forehead stretches out a phiale from which wine pours to the ground. A cross-topped staff held in his left hand rests against his shoulder. Over his head is a Λ -like character similar to those on the interior.

What is the subject which these three scenes unite to emphasize? Surely it is a familiar one, that of preparation for battle. The young men on the outside of the cup

are arming, while their elders send up prayers for success. On the medallion one of their number, already fully equipped, offers his own petition. The idea of libation before departure may not seem remarkable. But it is here expressed in a somewhat unusual way. Instead of a group of family and friends gathering round the soldier or the traveler,¹ we find a definite distinction between practical and ceremonial preparations. This division suggests that our painter took his models from two quite separate sources.

In one scene, indeed, the well-known series of arming cups finds a faint but precise reflection.² For the group pouring a libation it is difficult, however, to find any such firm tradition of cup-painting.³ The prototypes of these monumental figures appear rather in the pot-painters' repertory of celestial libation scenes.⁴ Whether our artist wished to suggest that the gods themselves were making offerings for the destruction of the Persians, or whether with traditional material he is merely representing the elders and betters of the young warrior on the medallion as joining their wishes to his, is

¹ Contrast the scenes of departure on Duris' cups, J. D. Beazley, *Attische Vasenmaler des Rotfigurigen Stils*, Tübingen, 1925 [*Att. V.*], p. 204, 60 and 67; also the arrival on the Brygos painter's cup in Corneto, *Att. V.*, p. 176, 10 (*Mon. Ined.*, 11, Pl. 33). Attributions quoted here are, unless otherwise stated, those of *Attische Vasenmaler*.

² The composition of the group to the right recalls that on Duris' arming cup in Vienna, *Att. V.*, p. 200, 9 (E. Pfuhl, *Malerei und Zeichnung der Griechen*, Munich, 1923, Fig. 455). We may also note here the use of a shield seen at an angle and leaning against the edge of the medallion. In attempting, however, to recapture something of the original impression which our cup must have made, later and less pretentious members of the series, such as the Foundry painter's Harvard cup, *Att. V.*, p. 187, 8 (*Fogg Art Museum Handbook*, Cambridge, 1931, p. 16) are more helpful.

³ Cf. *Att. V.*, p. 184, III, 2 (Gerhard, *Trinkschalen und Gefäße*, Berlin, 1848, I, Pl. D).

⁴ These compositions, rooted in black-figured painting, are of so frequent occurrence that a few examples of scenes and related figures may suffice:

Triptolemos painter, *Att. V.*, p. 153, 10 (*Corpus Vasorum [C. V.]*, Louvre 2, III Ic, Pl. 20, 6);

Berlin painter, Beazley, *Der Berliner Maler*, Berlin, 1930, no. 38 (*C. V.*, Oxford 1, III I, Pl. 15, 4), and no. 103, Pl. 24, 2;

Providence painter, *Att. V.*, p. 132, 1 (Lenormant and De Witte, *Elite des Monuments Céramographiques*, Paris, 1844-1861, II, 2, Pl. 13); *Att. V.*, p. 133, 12 (*C. V.*, Oxford 1, III I, Pl. 17, 4); and *C. V.*, Poland 1, III Ic, Pl. 21, 1 and 2.

A comparison of four versions from one hand may be made in pieces attributed to the Argos painter: *Att. V.*, p. 111, 3 (*C. V.*, Oxford 1, III I, Pl. 25, 3, there dated about 490-480); p. 111, 4 and 5 (*Archäologische Zeitung*, 1875, Pl. 10); p. 111, 6 (*C. V.*, Louvre 6, III Ic, Pl. 49, 4, 5). On the Oxford fragment no attributes of divinity or royalty appear, but part of an inscription indicates that the scene may have included Apollo. Comparison with the cup from the Agora suggests that the bit of a narrow band which shows next the break, at the right edge of the fragment, may be part of Apollo's lyre. On the earlier pelikai from Cervetri (*Att. V.*, 4 and 5) inscriptions and attributes leave us in no doubt as to the identity of the personages, Zeus, Poseidon and Nike. From similar material the painter of the cup from the Agora can have had little difficulty in assembling his scene.

In the late archaic and classical styles the use of such groups on the exterior of cups becomes much more common than it is at the time of our cup. Cf. School of Makron, *Att. V.*, p. 223, 20 (C. H. Smith, *Catalogue of Greek and Etruscan Vases in the British Museum*, III, London, 1896, Pl. 5); British Museum 1920. 2-16. 4; Euaion painter, *Att. V.*, p. 357, 20 (De Ridder, *Catalogue des Vases Peints de la Bibliothèque Nationale*, Paris, 1902, no. 817, Pl. 23 and pp. 481, 483); the Calliope painter's scenes are related, cf. *C. V.*, Oxford 1, III I, Pl. 11, 3 and 1.

uncertain. The lyre is somewhat out of place in a human libation scene;¹ but the right-hand figure, with clipped beard and plain staff, would hardly be at home on Olympus. The simpler interpretation seems adequate. Our Athenian soldiers' family reënacts a scene in which Nike once ministered to Zeus, Poseidon and Apollo.

When we look from our painter's subject to his style we see again his dependence upon his contemporaries. The superb technique in which he was trained could not give grace to the wooden drapery of the figures in the libation scene, or keep him from so unfortunate an anatomical incident as the left hand of the wine-pourer. His interest for us rests in great measure on the influences under which he came, and on his eclectic collection of scenes, details, and time-saving tricks.

By far the most important influence is that of the Brygos painter.² From this master he borrowed the pose of the left-hand figure in the arming scene,³ the dress of the warriors,⁴ the pose, perhaps, of the seated figure,⁵ the type of bearded male head,⁶ and of female head.⁷ From one of the Brygos painter's close followers came, it may be, both the subject and the composition of the scene on the medallion.⁸ We may add to

¹ It serves, however, the decorative purpose of filling the surface of the cup where it spreads sharply at the upward curve, and thus provides the only clear trace of cup-painting tradition which the composition of the scene affords. Its presence seems sufficiently accounted for by this ornamental function, and by the painter's dependence on his models. The latter consideration might also apply to the lotus-tipped staff often interpreted as an emblem of royalty, which the standing bearded figure here carries.

² The connection with the school of the Brygos painter, suggested by Miss Gisela M. A. Richter, is confirmed "in a widish sense" by Professor Beazley. See below, p. 222, note 5.

³ Cf. Akamas on the Iliupersis cup, *Att. V.*, p. 176, 3 (Pfuhl, *op. cit.*, Fig. 420).

⁴ Cf. *Att. V.*, p. 177, 17 (Gerhard, *Auserlesene Vasenbilder*, Berlin, 1858, IV, 269). The boy who bends to put on his greaves wears the bordered cloak folded scarf-wise over his armor.

⁵ Compare both the interior and exterior of the cup in Corneto (p. 220, note 1, above). The many similar medallions where a girl pours wine for a soldier or an old man have an origin akin to that of our scene of libation. On Duris' cup in Berlin, *Att. V.*, p. 200, 15 (Hoppin, *A Handbook of Attic Red-Figured Vases*, Cambridge, 1919, I, p. 211). Nike herself officiates.

⁶ Compare and contrast the drawing of beard and moustache, eyes, ears and nostrils on two cups by the Brygos painter from the Akropolis: the running archer on the fragmentary Herakles cup, *Att. V.*, p. 176, 11 (Graef and Langlotz, *Die antiken Vasen von der Akropolis zu Athen*, Berlin, 1929, II [*Vasen Akrop.*] no. 288, Pl. 16), and Odysseus on the Circe cup, *Att. V.*, p. 176, 4 (*Vasen Akrop.*, no. 293, Pl. 17). The first of these cups is dated, in the Acropolis publication, during the first decade of the century, the second among the later works of the master, about 480.

⁷ The head of the girl on the cup from the Agora might have been copied from that of a maenad on a cup fragment in Castle Ashby, *Att. V.*, p. 177, 14 (*B. S. R.*, XI, 1929, Beazley, "Notes on the Vases in Castle Ashby," no. 28, Pl. X, 3 and 4, dated about 490-480).

⁸ As compared with the number of non-military libation scenes on the medallions of cups, sacrificing warriors are rare. Duris used one on a cup in the Louvre (*Att. V.*, p. 205, 69), but only the lower part of the scene remains. From the Brygos painter's circle we may compare two cups by the Paris Gigantomachy painter, *Att. V.*, p. 190, 11 and p. 192, 53; and another given to a close follower of the Brygos painter, *Att. V.*, p. 183, 5. The last-named is described (Stephani, *Die Vasen-Sammlung der Kaiserlichen Eremitage*, St. Petersburg, 1869, I, p. 355, no. 657) as showing a bearded warrior, fully armed, with shield on left arm and spear in right hand, facing left toward a flaming altar. Compositions such as that of the Foundry painter on his cup in Boston, *Att. V.*, p. 187, 10 (Caskey, *Attic Vase Paintings in the Museum of Fine Arts*, Boston, 1931 [*Vases in Boston*], no. 31, Pl. XI) seem also not far removed.

the list of Brygan characteristics the use of dilute glaze for chiton folds, the dotted garments, the himatia bordered at the ends, and the treatment of greaves and ankle-bands.

The drapery, further, shows two shortcuts employed by the Brygos painter. On the palaestra skyphos in Boston,¹ the folds of an himation, wound tight round the bent left arm, are indicated simply by lines drawn round the arm itself, without any very definite connection with the garment. In the case of the wine-pourer on the cup from the Agora the effect of this same treatment is exaggerated by the use of three such lines instead of two and by the angular treatment of the rest of the drapery. The second shortcut consists in rendering the pull of the himation across the hips by superimposed V-shaped strokes. This method, used for our standing bearded figure, appears clearly on the Brygos painter's skyphos in Vienna² and on his cup in Corneto. Another device, that of drawing the female breast with the upper line concave,³ also well illustrated by the last-named cup, is reflected in the figure of our wine-pourer.

A simple stool similar to ours occurs occasionally in the Brygos painter's work.⁴ To find a stool beneath one handle and an altar beneath the other we must, however, look to a late reflection of his style, a cup in the Stroganoff collection,⁵ which also bears a version of our scene of libation. Thoroughly in the spirit of Brygos' workshop is another detail, the variation in the motif used to break the maeander circle. Beside the cross square, saltire squares and checkerboards are sufficiently familiar on cups contemporary with ours. The particular combination used by the painter of the cup

¹ *Att. V.*, p. 180, 69 (*Vases in Boston*, no. 18, Pl. 7).

² *Att. V.*, p. 180, 67 (FR, Pl. 84 and II, 122); see also the figure of Dionysus on the rhyton in Goluchow, J. D. Beazley, *Red Figure Vases in Poland*, Oxford, 1928 [*Vases in Poland*], Pl. 11, 2. A number of cups more or less close to ours in manner and date show how eagerly the Brygos painter's followers and associates adopted this method of rendering drapery folds. Cf. the cup from Brygos' shop, now in Frankfurt, *Att. V.*, p. 185 (Schaal, *Griechische Vasen aus Frankfurter Sammlungen*, Frankfurt, 1923, P. 31 b); the cup with the disputed signature of Duris, *Att. V.*, the Triptolemos painter, p. 153, 15 (Pfuhl, *op. cit.*, Fig. 465); and in particular the Dokimasia cup, *Att. V.*, p. 193, 1 (von Lücken, *Griechische Vasenbilder*, Berlin, 1921, Pl. 90, 2 and 45-46), and a cup in New York with komos scenes, *Att. V.*, Manner of the Brygos painter, p. 183, 3. In addition to similarities of drapery, the lyre on the last-named cup is, though an ordinary type, unusually close in its details to that on the cup from the Agora. We should note that with this New York cup Professor Beazley (*Att. V.*, p. 183) associates the Petrograd piece, referred to above, showing a warrior at an altar.

³ Seen in its most exaggerated form on the maenads of the cup in the Cabinet des Medailles, *Att. V.*, p. 177, 13 (Pfuhl, *op. cit.*, Fig. 430).

⁴ Cf. the stool of the central seated figure on the reverse of the skyphos in Vienna. On this vase also we find the snakes of our altar appearing as part of the decoration of Achilles' couch. Cf. also the Brygan cup in Oxford, *Att. V.*, p. 473 (*C. V.*, Oxford 1, III 1, Pl. 2, 6). The latter, dated at about 480, in general recalls the Agora piece.

⁵ Pollak and Muñoz, *Pieces de choix de la collection du comte Gregoire Stroganoff*, Rome, 1912, I, Pl. 37-38. I am indebted to Professor Beazley for suggesting this comparison and for sending me photographs of a fragment which he associates with this cup (Adria B 608). The mouth, double chin and clipped beard of the old man on the latter piece recall the cup from the Agora. On the Stroganoff cup, the composition of the medallion suggests ours, and both sides of the exterior show versions of a libation scene which reflects similar originals; moreover the Brygan influence is still clear, especially in the girls' heads, which recall the Corneto cup, though at one remove further than the Agora piece.

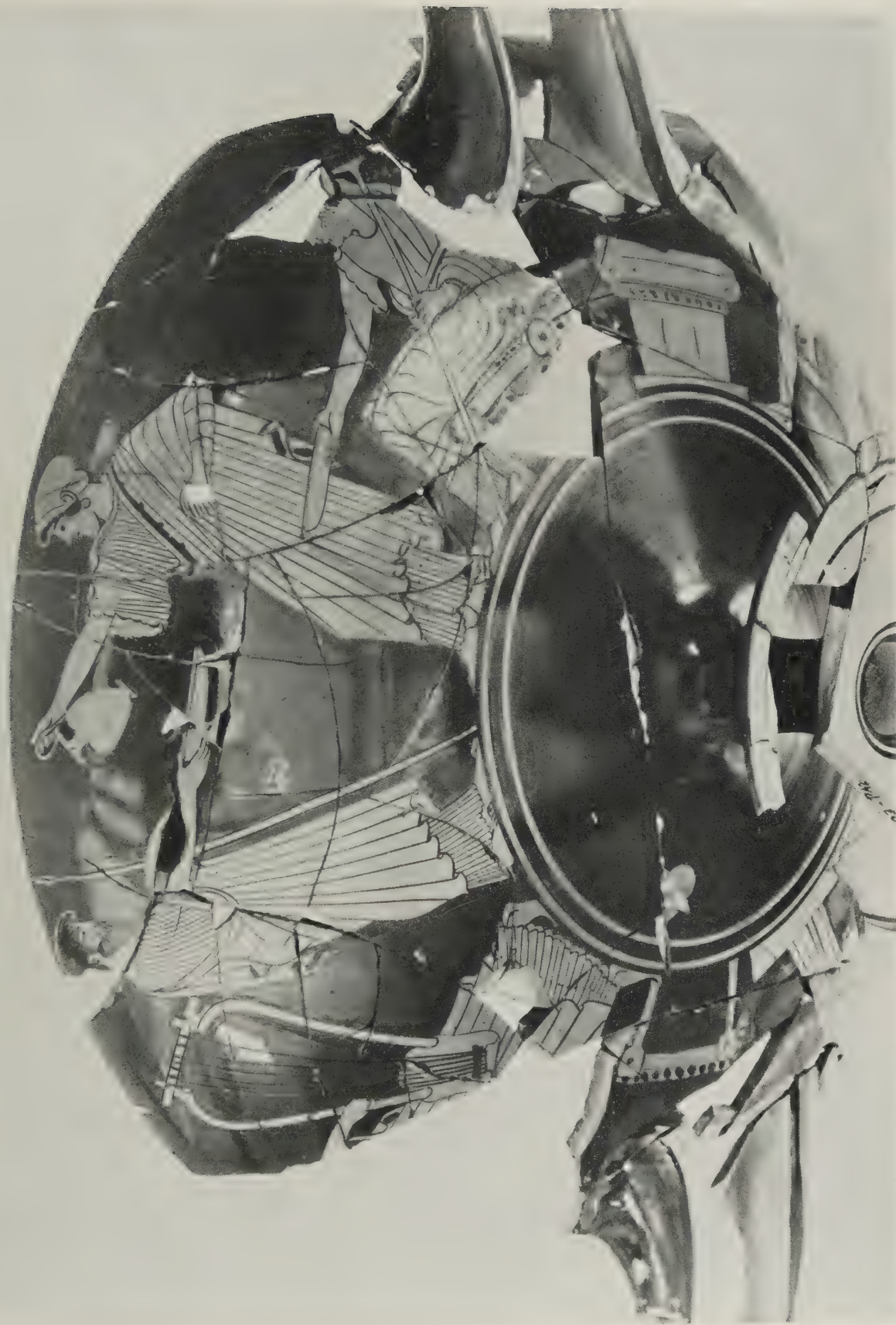


Fig. 4

from the Agora, a cross square alternating with a saltire square, seems rare on cups, though it does occur on lekythoi.¹

Most of the parallels which we can cite for the details of our cup, whether in pieces painted by the Brygos painter, or by his followers, come from cups datable in the vicinity of 480, or shortly before.² Enumeration of other influences which it shows, or of elements common to the general vase-painting repertory which it reflects, serves to strengthen its connection with the painters working at this time. The elaborate altar of the interior, for instance, can best be compared with one on a lekythos attributed to the Tithonos painter.³ The young soldier standing before it has kept the Brygan profile, but his rather untidy hair recalls the two warriors on the interior of the Kleophrades painter's arming cup⁴ and his general aspect is not unlike that of the boy who stands behind the horses on the outside of the same piece. Closer, however, is the head of a boy who bends to put on his greaves on a charming white-ground lekythos by the Bowdoin painter.⁵

Despite such connections as these, our artist's main dependence on the Brygos painter in his later phase is so clear that we might be tempted to think that the master himself in a hasty moment put together this competent pastiche. But technicalities alone, however numerous, do not bring conviction. We must be content to assign our cup to a hitherto undifferentiated follower of the Brygos painter, active in the years just before Salamis, probably a painter of pots as well as of cups, and at all events a pioneer in the transference of a traditional libation group to the cup-painters' repertory.

The white-ground kylix⁶ (Fig. 5) is more puzzling, and more rewarding. Its profile (Fig. 6) shows an offset lip and heavy foot. The hard black glaze which covers the exterior⁷ continues within for the width of the lip, forming a frame for the simple scene inside. About a quarter of the rim remains; the medallion, defined by a single circle of glaze, is nearly complete. Between the rim and this circle appears an inscription,

¹ *Att. V.*, p. 474, Paris Gigantomachy painter (*Vases in Boston*, no. 30, Pl. 10 and p. 26, dated about 480); New York, Metropolitan Museum 25. 189. 1; Oxford 1911. 630 (*C. V.* 1, III I, Pl. 19, 6, dated about 490–480); Oxford 313 (*C. V.* 1, III I, Pl. 33, 4, similarly dated). Cf. also *Att. V.*, p. 196, 22 (J. D. Beazley, *Attic Red-Figured Vases in American Museums*, Cambridge, 1918, p. 109, Fig. 68), and variants such as those used by the Dionokles painter.

² In particular compare the Corneto cup (p. 220, note 1, above) and the Castle Ashby fragment (p. 221, note 7. It seems, further, as if both the peculiarities of drapery treatment here noted were, in the form in which we find them, relatively short-lived (p. 222, note 2).

³ *Att. V.*, p. 129, 11 (*C. V.*, Oxford 1, III I, Pl. 34, 2, there dated about 490–480).

⁴ *Att. V.*, p. 76, 71 (*Vasen Akrop.*, no. 336, Pl. 24 and 25, and, for the question of date, p. 31).

⁵ *Att. V.*, p. 141, 67 (Fairbanks, *Athenian White Lekythoi*, New York, 1907, I, p. 49, Fig. 22, and cf. *J. H. S.*, XVI, 1896, Bosanquet, p. 173, note).

⁶ Inv. 393 P 43.

Height 0.084 m., estimated diameter 0.17 m., diameter of medallion 0.118 m., diameter of base 0.07 m., height of rim 0.021 m.

⁷ Two lines scratched through the glaze set off the ring round the base of the stem. The upper, concave, portion of the outer edge of the foot is reserved, as is the resting surface and the interior of the stem, the handle-space and the inside of the handle.



Fig. 5

[.]ΑΙΝΟΣ Κ[ΑΥΟΣ], painted in black glaze. Within stands a boy tuning a large lyre. He is facing to the right, and is wrapped in an himation which leaves his right shoulder and arm free. The back of his neck and head, and parts of both his feet are missing. The hare who sits before him, right paw upraised, lacks parts of his back and ears, his belly and hind-paws.

At its best the ground is hard as enamel, a clear white, roughened, yellowed and worn grey on the lower part of the medallion. The middle of the himation has suffered, but its dull brownish red, with the folds added in black, is well preserved above and below. The simple fillet is white. No other color is used save that of the glaze paint which is diluted to a deep cream color for the wash underlying the hare's brown fur. The outlines of the animal are likewise brown, but his whiskers, like the strings of the lyre, were drawn in a very pale dilute glaze. The preliminary sketch, of which traces remain behind the boy's right foot, was done with a dry point, as were the interior flesh markings. Otherwise all the drawing is an even black outline fading but rarely (in the boy's upper eyelid, in the plectrum cord and on part of the enclosing circle) to a golden brown. Sometimes, as on the boy's right arm, so full a brush was used that the glaze stands out from the background. Again, on the plectrum cord or the boy's left ankle, the bristles seem to have separated making a double line which, in the photograph at least, is misleadingly like a relief contour.¹ There are however no relief lines on this cup.

As for the subject, it is, in its elements, perhaps the commonest we could name. Yet out of the multitude of Attic musicians only a few are engaged in adjusting their lyre strings.² The boy listens intently to the notes which he strikes with his left hand, while with his right he tightens the pegs at the cross-piece. His dress is formally traditional;³ his manner that of the serious musician, not the merryman. We may compare him with Iphikles on the Pistoxenos painter's skyphos.⁴

¹ A similar divided line may be seen on other white-ground cups without relief contours. Compare the warriors on the fragmentary cup in Boston, *A. J. A.*, XIX, 1915, Swindler, p. 410, Fig. 5.

² A fragment in Bryn Mawr, "in the Epictetan manner," seems to come from a similar subject (*A. J. A.*, XX, 1916, Swindler, pp. 338 and 340).

On a white-ground cup from the Acropolis a youth tuning a lyre stands at the foot of a couch on which reclines an older man (*Vasen Akrop.*, no. 445, Pl. 37 and p. 40, given to the circle of the Chicago painter, 460 to 450).

Cf. also British Museum E 132; and the girl tuning her cithara on the white cup in the Louvre (*Mon. Piot*, II, 1895, Pl. V).

³ From the figure of Sappho, incised on a black ground on the hydria in Goluchow (*C. V.*, Poland 1, III He, Pl. 16, 3 a and 3 b) to the London cup mentioned above the musician's manner of wearing the himation remains essentially unchanged. Compare with our figure that of the boy with a lyre on the Brygos painter's symposium cup in London, *Att. V.*, p. 177, 18 (Hartwig, *Die griechischen Meisterschalen*, Berlin, 1893, Pl. 34); also the standing flute-player on a cup by Makron, *Att. V.*, p. 217, 88 (Hoppin, *op. cit.*, II, 59).

⁴ *Att. V.*, p. 259, 1 (Pfuhl, *op. cit.*, Fig. 471). Makron's cups provide many examples of tranquil musicians. See *Att. V.*, p. 211, 4; p. 215, 57; p. 216, 87; p. 217, 91, with references to illustrations. The lyre on no. 87 recalls ours. Compare also Duris' school cup, *Att. V.*, p. 203, 41; and a hydria by the Triptolemos painter, *Att. V.*, p. 152, 7 (*C. V.*, Oxford 1, III I, Pl. 31, 3-4, dated at about 480).

Combined with this serenity is a remarkable animation. The use of the circular frame as ground line helps to give elasticity to a standing pose, and as the boy leans back slightly to balance the large lyre the sweep of his right arm is implicit with vitality. Even the broad-eared hare is alive, waiting, it seems, for the music. We need not emphasize the skill and the feeling necessary to create so highly sophisticated a simplicity as that of the cup from the Agora. Its success owes little to novelty, less to action. Enhanced by the restrained use of color on a white ground, the composition achieves a perfect rendering of rhythm in repose.

In the series of vases among which this cup must find a place the most familiar examples are not of its technique. Earlier white-ground work tends to keep the clarity of a relief contour;¹ later painters develop the possibilities of the dilute glaze medium. Our cup stands midway between the two groups. Place it for a moment beside the cup showing Orpheus and his Thracian antagonist.² How sharp a contrast between the dark uniform outlines of the one, and the restless variation of tone in the other!

Among the fragments found on the Acropolis there are, however, a few painted in an intermediate method similar to that of the cup from the Agora. One of these,³ a cup with red-figured exterior, shows within a single monumental figure, Athena pouring a libation. The brush outlines of hand and arm range from black to brown. An associated piece,⁴ with the outlines consistently black, shows part of an advancing warrior. In the third example, Herakles attacking an enemy,⁵ the black outlines are fading to gold. Of these cups, the first and last can be assigned to the vicinity of 490, and show a close association with the work of the Panaitios painter.⁶ Such evidence of the use of a brush technique at the height of ripe archaic painting prevents us from considering the method as indicative of lateness in date. It seems as if we have to deal with two

¹ As the Brygos painter's maenad, *Att. V.*, p. 176, 12 (FR., Pl. 49), or the London oinochoe with a spinning woman, *Att. V.*, p. 188, 7 (British Museum, *Guide to the Exhibition Illustrating Greek and Roman Life*, London, 1920, p. 143, Fig. 171), the latter placed by Professor Beazley at about 485 to 480.

² *Att. V.*, p. 260, 5 (*Vasen Akrop.*, no. 439, Pl. 35 and 36).

³ *Att. V.*, p. 170, 58 (*Vasen Akrop.*, no. 434, Pl. 33 and 35, and p. 39). The two shades of red, common in later white-ground work (*Vases in Poland*, p. 13) here make an early appearance.

⁴ *Vasen Akrop.*, no. 435, Pl. 32.

⁵ *Vasen Akrop.*, no. 432, Pl. 33 and p. 38.

⁶ A date toward the end of the first decade of the century is suggested, in the Acropolis publication, for the Athena cup, there tentatively attributed to Makron. By Beazley it is given to the Panaitios painter. If we accept the latter attribution, the divergence in style from the Panaitios painter's earlier white-ground pieces (*Att. V.*, p. 166, 1 and 2; *Arch. Delt.*, IX, 1924-25, Papaspyridi, Pl. I and Fig. 14, p. 16) may be accounted for not only by the later date of the Athena, but by the adoption of a different technique.

The head on the red-figured exterior of this Athena cup bears a strong resemblance to that of Herakles on the white cup mentioned above, a piece which again brings us close to the same master: it is attributed in the Acropolis publication to the painter of "Hartwig 49," a cup which has also been included in the works of the Panaitios painter (*Att. V.*, p. 169, 49).

There seems small reason to separate the members of this group, to which we may add a fourth, a fragmentary white cup in the Louvre (*Mon. Piot*, II, 1895, Pottier, p. 53), again representing Herakles, and apparently from the same hand as the Acropolis cup on which he also appears.

separate but contemporary white-ground traditions. The one, that of relief contours, reaches its climax first, in works such as the Brygos painter's maenad.¹ Our Acropolis examples, however, show us the other technique in use at a date at least as early. Whether from the hand of the Panaitios painter or a close associate, they certainly suggest a connection with the workshop of Euphronios. It seems possible that it was under his auspices that the brush method was revived and carried on, for its first elaborate development appears in cups from the same workshop, the white cups attributed to the Pistoxenos painter.²

This master's work provides us with the lower limit for the dating of the cup from the Agora. We need only compare the hair of his Orpheus or of the seated boy in Berlin³ with the black locks of the lyre-tuner to feel the restraint and severity of the new piece. And we see that the profile type of the Orpheus cup, though extremely close to that of the lyre-tuner, also shows a considerable advance, especially apparent in the treatment of the eyes.⁴ The eye of the boy from the Agora, though it does indeed achieve something of a profile look,⁵ is actually drawn full face, with the inner angle closed.⁶ If the Orpheus cup was made not long after the striking of the Damareteion in 479 or 478,⁷ it is difficult to believe that the lyre-tuner could have been painted later than the time of Salamis.

A fragment from the Acropolis⁸ which we can with some certainty assign to the potter of the cup from the Agora gives us tantalizingly little information. It preserves on a slightly larger scale the same profile of the lip which we see in Fig. 6. Nothing remains of the foot, but the treatment of exterior, handle, and rim glazed round the

¹ The method lived on for a long time, especially among lekythoi. Cf. Fairbanks, *op. cit.*, Class III, and Athens, National Museum, the oinochoe no. 2186 and the cup no. 2187.

² Followers of the Pistoxenos painter sometimes used relief contours, as *Att. V.*, p. 261, 3, below (*Vasen Akrop.*, no. 589, Pl. 45); but the method does not appear, save to give substance and contrast to details, on the white-ground work attributable to this artist himself.

³ *Att. V.*, p. 259, 4 (Pfuhl, *op. cit.*, Fig. 415). For the origins of this treatment of hair against a white ground compare Triton on the Panaitios painter's Eleusis fragment, *Att. V.*, p. 166, 1.

⁴ We must, however, note that the methods of drawing the eye found on vases attributed to the Pistoxenos painter are extremely varied. On the double disk in Athens (*Att. V.*, p. 259, 2) Thetis has an eye drawn full face, whereas the other figures show the well-developed profile.

⁵ This effect may be more complete than the artist could have expected. In part at least it is due to the light color of the line used for the upper eye-lid. That there was some uncertainty in the diluting of the glaze seems probable; the lyre strings and the hare's whiskers are now almost invisible.

⁶ For a related type cf. the exquisite head on a red-figured fragment in Munich, given by Langlotz to the Perugia painter (Langlotz, *Griechische Vasenbilder*, Heidelberg, 1922, Fig. 45 and p. 14). We may also compare the types on Makron's vases, as *Att. V.*, p. 211, 3; p. 216, 83; p. 217, 91. Cups such as the last two also provide parallels for the method used by our painter for indicating the hare's fur. Few of these lanky creatures bear, however, any other relation to our plump court-yard pet. Nearest, perhaps, is the hare held by a boy on no. 83, and the one being led on a leash on Makron's cup in Paris, *Att. V.*, p. 214, 50 (Hoppin, *op. cit.*, II, p. 71).

⁷ Langlotz, *Zur Zeitbestimmung der strengrotfigurigen Vasenmalerei und der gleichzeitigen Plastik*, Leipzig, 1920, pp. 100 ff. Compare Jacobsthal, *Ornamente griechischer Vasen*, Berlin, 1927, p. 129.

⁸ *Vasen Akrop.*, no. 430; estimated diameter 0.16 m.; height of rim 0.038 m.

inside¹ is identical. The texture of the white ground interior is similar, and so is the outline of glaze surrounding what remains of the medallion, which shows us only a small bit from the top of a helmet, drawn in dark brown glaze.

No more helpful is the inscription round the margin of our cup. For its spacing and arrangement we may compare the earlier Athena cup, but we know of no Attic name of six letters of which the last five read ΠΙΝΟΣ, nor is there any reason, from the state of the cup's preservation, to assume that more than one letter is missing.²

If we wish to associate the Agora lyre-tuner with any known painter at work just before Salamis, we must turn from the question of technique, from the silent inscription, back to the boy himself. His simplicity and directness suggest the reaction of a young

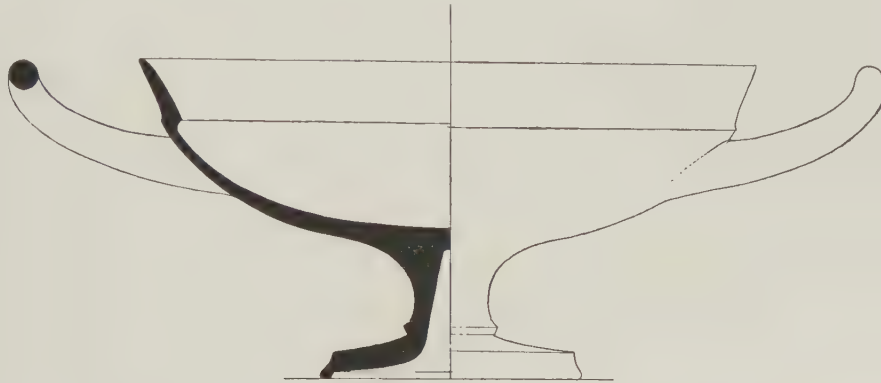


Fig. 6. Profile of White-ground Cup

man against the complexities of ripe archaic painting, the preparation, indeed, for a newer style. It is among the masterpieces of the early classical period that we must look for other work from this hand. The white cups of the Pistoxenos painter provide one possible comparison. The rhythmic pose and spirited dignity of Apollo on the Penthesilea painter's Tityos cup, as well as the drawing of the back, arm and hair of the same figure, suggest another.³ As the earliest known work of such a master our cup would be understandable; but either attribution meets with difficulties, and it can

¹ This method of framing the interior seems rare in later white-ground cups. It recalls rather the method used on white-ground plates such as *Akrop. Vasen*, nos. 425 and 427, Pl. 32. We find it further on the Herakles cup mentioned above, and on a small fragment showing the back of a chair, *Akrop. Vasen*, no. 429, Pl. 32. Cf. also the exterior of the Gotha cup, Jacobsthal, *op. cit.*, Pl. 69.

² As an addition to the list of kalos-names we might suggest Φεῦρος, though this implies the substitution of *iota* for *upsilon*. Cf. the name of Euryptolemos, spelt ΕΥΡΙΠΤΥΕΜΟΣ on the cup in Florence attributed to Apollodoros (Klein, *Die griechischen Vasen mit Lieblingsinschriften*, Leipzig, 1898, p. 105, 2; and see Kretschmer, *Die griechischen Vaseninschriften*, Gütersloh, 1894, 97). If a similar error can be supposed, our Phrynos might be he of the tribe Erechtheis who fell in battle in 459 B.C. (IG² I, 929).

³ *Att. V.*, p. 272, 2 (Pfuhl, *op. cit.*, Fig. 502); and compare also the white-ground double disk in New York (*Bulletin of the Metropolitan Museum of Art*, XXIII, 12, 1928, Richter, pp. 304, 305).

hardly be that all the personalities of Euphronios' workshop are yet known to us. Our cup may be the work of some young painter who did not return from Salamis.

Fortunately we are not dependent, for the dating of these cups, on internal evidence alone. We cannot take leave of them without considering what were the circumstances of their finding.

When the foundations of the Royal Stoa were being uncovered, in June, 1931, there was cleared a small pit, dug in Byzantine times down through a white clay layer which had served as flooring for the building. The first pick strokes through the bottom of this pit revealed a complete change in the character of the fill. Dense and black, showing signs of burning, it yielded first a fragment from the rim of the red-figured cup and in quick succession the greater part of the cup and many pieces of its white-ground companion. Further excavation beneath the clay flooring immediately to the west brought to light, in March, 1933, a few additional fragments of the Brygan cup and a large portion of the white-ground piece.¹ Found coated with ashes, at the bottom of the burned layer, and themselves bearing unmistakable signs of burning, there can be no doubt that the cups were included in a conflagration which destroyed the precursor of the present Royal Stoa.²

Among the black-figured and black-glazed fragments from this stratum are many which recall the wares found in other parts of the Agora in conjunction with red-figured pottery of the second decade of the century. Of four sherds with traces of red-figured decoration found in the burned layer, one, with the finger-tips of an outstretched hand, bears the inscription $\text{A}\backslash\text{KME}[\text{ON}]\text{KAVO}[\Sigma]$, and thus again suggests a possible connection with the Brygos painter.³ Nothing in the burned layer implies that the fire which caused it was later than the Persian destruction of 479.

The evidence of the excavation, then, gives the year 480 as a *terminus ante quem* for the making of the two cups. Though at first glance both cups may seem to belong to a slightly later date, detailed examination shows that they need not be so considered.

¹ The top part of the medallion is clearly distinguishable by reason of its better preservation from the pieces earlier found, which seem to have suffered by reason of the late pit immediately above them.

² Three trial trenches, dug in various parts of the Stoa, showed the existence of the burned layer beneath a large portion of the building. For this evidence I am indebted to Dr. Thompson, who has kindly shared with me his conclusions as to the date of the burning of the earlier building, on whose hard dirt floor, itself heavily fire-stained and buried by the full depth of burned matter, the fragments of our cups were found.

³ Cf. the lekythos with this inscription, *Att. V.*, p. 182, 93 (*J.H.S.*, XIX, 1899, Dickson, p. 203). The new fragment comes from a thin-walled pot with both vertical and horizontal curve, unglazed inside. The inscription, in two lines written vertically, is painted in thick white.

LUCY TALCOTT

THE COINS OF ATHENS

Plate VII

The number of coins found in the excavation of the Athenian Agora fairly staggers one. In ten weeks' excavation, in the season of 1931, 4350 coins were found. Immediately many problems arise in the mere handling of such enormous numbers. But since numismatic evidence is indispensable to the excavator, the coins with all their problems must be given the utmost care and attention.

Outside of one gold coin, a French Napoleon of 1854, and a few Athenian silver pieces, the great mass of coins are bronze which come out of the damp earth in a very badly corroded condition. This is true of most coins coming from excavations and accounts for the distinct lack of numismatic records derived from excavating. The chlorides and nitrates in the soil are the chief corroding agents and convert the constituents of the bronze into an outer hard green crust, usually so thick that recognition or identification is almost impossible. Often the very core of the metal has been eaten by the corrosion, in which case we have nothing left but a green shell of copper compounds covering a soft brittle core, red or brown in color.¹ The presence of water merely as moisture in the soil will mineralize the surface of the bronze.² This no doubt accounts for the bad corrosion of the Agora coins, since the entire area was riddled with drains. They seem to be in a worse state than most excavation coins, as those from Corinth for example.

Since we had such fragile and badly corroded coins to study, it was necessary to use a method of cleaning that would not only remove the ugly crust, but would likewise restore or preserve intact what designs and engravings there were on the coins. The only safe and satisfactory method to accomplish this result was by electrolysis. Though this does away with some of the drudgery of the other methods and gives us a larger percentage of identifiable coins, nevertheless it requires infinite time and patience. If the coins are properly cleaned then more than half the battle is won.

The electrolytic process is described in detail by Colin G. Fink in his article *The Restoration of Ancient Bronzes and Other Alloys* published by the Metropolitan Museum of Art.³ Without any preliminary cleaning, the coins are wrapped with soft copper wires constituting the cathode and are completely immersed in a 2% solution of caustic

¹ Fink, Colin G. and Eldridge, C. H., *The Restoration of Ancient Bronzes and Other Alloys*. Published by the Metropolitan Museum of Art. 1925, pp. 9-10.

² Fink, *op. cit.* p. 10.

³ Fink, *op. cit.* p. 15.

soda, to which a low amperage direct current is applied. The anodes are small platinum plates about 6×9 centimetres which are hung on either side of the coins. A rectangular glass battery jar of about four litre capacity is used as a container. Since the electric circuit in the city of Athens produces 220 volts, alternating current, it is necessary to use a transformer to change this to direct current and reduce the voltage. The cell is thus connected in series with a rheostat and a transformer, converting the current to a direct one of from 2–3 volts, so that 0.4 amperes flow in the circuit. By using four of these battery jars with from 16 to 20 coins to the jar, we are able to clean from 65 to 80 coins at a time. We have found it most satisfactory to leave the coins in this solution for 48 hours or more, as it takes about that length of time for the hydrogen at the cathode to reduce the crust to finely-divided or spongy copper. The complete reduction of the crust is indicated by a free evolution of gas at the cathode.¹ The coins are then removed and soaked in warm water to eradicate the caustic soda.

The final process of cleaning is that which requires care, patience, and judgment. In the well-preserved coins the spongy outer surface readily comes off with a small blunt metal instrument, revealing a hard metal surface beneath, so that it is quite safe to use a soft brass-wire brush to remove the blackened traces of the oxide layers. The final polish is given to the good coins with a rotary brush, running at slow speed, the bristles of which are made of very fine brass wire, so soft that not even the skin is affected when the fingers are held on it in motion.

However, many of the coins are in such an advanced state of corrosion that the surface will stand only the most gentle brushing with a soft bristle brush. If any design is to be made out on a coin it will appear at this time, when the crust has been softened and the metal compounds in the corrosion reduced back to metal. It is at this time that the coin should be cleaned as completely as possible, for if the crust is allowed to harden again, this entire process has been in vain. The constant cleaning of coins teaches one how much treatment the surface of mal-preserved coins will stand. Also it is in the cleaning of these poor coins that one realizes the necessity of having the coins cleaned by one familiar with coin types, for the disappearance of a single letter or a bit of design may make it totally impossible to identify a coin.

Though all of these 4350 coins have been cleaned during the course of the past year, as yet they have not all been identified and catalogued, owing to their great numbers, the slowness of the cleaning process, and the fact that the coins have to remain in Greece and can be studied there alone. However, the coins of the 1931 season coming from the excavation of the Royal Stoa and vicinity have been completed, as well as a goodly proportion of others, and it seemed well worth while to give a short preliminary survey of the character of these coins.

Though coins from one short season may give a fair indication of what we can expect in the future, nevertheless from the very nature of the excavation this will be

¹ Fink, *op. cit.* p. 16.

but a bare introduction to the numismatic evidence which this site will produce. Considerable light is thrown on the history of the site, as well as on the trade and foreign relations of the city of Athens. Moreover, a scientific examination and thorough-going study of the coins found in the Athenian Agora will eventually give us a complete chronology of Athenian coinage. Especially illuminating will be the sequences of the bronze coins which are found in such quantities and which heretofore have been given only a limited attention.

The coinage of Athens has always been a subject of the utmost controversy, particularly the early coins of the late seventh and early sixth centuries, known as "Wappenmünzen" or "heraldic coins." At the present our coins do not warrant a discussion of this question, as we have but one small example. The scarcity of this type in the Agora may possibly be explained by the fact that this was not the civic centre until the late sixth century, but future discoveries may add more of these types to our collection.

These "heraldic coins" testify by their technique and character that they are a homogeneous group, and I think E. Beulé is quite right in saying that either all are Athenian or none is.¹ According to Mr. Barclay Head,² the Athenians until the time of Solon would have used exclusively foreign money, presumably the "tortoise" of Aegina.³ In the *British Museum Catalogue of Attica* he contends that the Solonian currency consisted of the Athenian "owls" of the early archaic style, but in his second edition of the *Historia Numorum*, he retracts that statement and assigns the group of "heraldic" coins, with the owl to the left, with and without the linear circle, on the obverse and the incuse square on the reverse, to the Solonian coinage.⁴

Older numismatists as Abbé Barthelemy, Cousinery at the end of the eighteenth and beginning of the nineteenth century, then Beulé, and others proposed the "heraldic" coins as the early Athenian currency, which more recent savants, including Head, have believed themselves authorized to attribute to different cities of Euboea.⁵ I hope that Professor Seltman's treatise⁶ on the subject has done much to retrieve the older position.

¹ Babelon, E., *Traité des Monnaies Grecques et Romaines*, II^e partie, *Description historique* 1, p. 700.

² B. M. C. (*Attica*). Introduction, p. XIII.

³ Head, Barclay, *Historia Numorum*, 2nd edition, p. 366; C. T. Seltman, *Athens, Its History and Coinage before the Persian Invasion*, p. 6, note 3. "This misconception has been based upon a statement of Pollux (*Onom.* IX 76), who mentions that the ancient coins which the Athenians spoke of as 'fat drachms' were Aeginetan 'turtles,' but he does not refer to any particular period, nor does the context show that they were ever used in Athens at all as regular currency."

It is impossible to think that the Athenians would have deigned to use Aeginetan coins when the hostility between Athens and Aegina was of so long standing after the Aeginetan war (Herodotus V, 83ff.) which Ure (*Origin of Tyranny*, Appendix C) places before 670 B.C.

⁴ Seltman, *op. cit.* Plate III P₅₄ A₄₈, P₅₆ A₄₈—A₅₀, also Plate XIV P₂₅₁ A₁₉₉, P₂₅₂ A₂₀₀; Svoronos, Jean N., *Trésor de la Numismatique Grecque Ancienne, Les Monnaies d'Athènes*, Plate I, nos. 1-12.

⁵ Babelon, *op. cit.* p. 700.

⁶ Seltman, *op. cit.*

Professor Seltman has proved that a group of coins of Pheidonian standard, consisting of didrachms¹ with an amphora of "Tyrrhenian" shape² on the obverse and an incuse square on the reverse, is the Athenian Pre-Solonian coinage, because of the similarity to Solonian coins of Attic standard.³ The oil-amphora in which the state's chief export was carried abroad was a most appropriate symbol for coins used by the Athenian merchants.⁴

Aristotle tells us that Solon "increased the currency,"⁵ a measure to relieve the Attic farmers from the deplorable conditions that resulted from the use of current coin.⁶ Seltman believes that the coinage was debased to a lighter standard, thus increasing the bulk of coins.⁷ A comparison of Pre-Solonian⁸ and Solonian didrachms⁹ shows this difference in weight. In adopting this new system which Seltman contends was already in use in Corinth, borrowed by her from Cyrene,¹⁰ Solon, a great trader in the age of merchant princes, hoped to open the way to the world markets and to prosperity for Athens.¹¹

The oil-amphora was even more appropriate to the currency of Solon, for Plutarch¹² tells us that Solon allowed oil alone to be sold abroad, and forbade the exportation of all other products. The amphora now became a civic badge, for Solon saw the need to imbue the Athenian people with a civic sense. Thus he raised the coin type of the amphora to a civic dignity by presenting it in the guise of a coat-of-arms carved within the circle of a shield. "The love of heraldry was strong in the 6th century, as is manifest from the prominence given on Black-figured vases to shields and their devices."¹³

Mr. Seltman, by his study of punch and anvil dies, has arrived at a most plausible sequence of devices which are found on these "heraldic coins." He attributes them all to the Athenian mint, proving that they are the money issued under the regime of the old Eupatrid families.¹⁴ Every device represented on these coins can be found as a shield sign on some early Athenian vase. The family badges of the nobility of Athens served as a prototype common to both coins and vases,¹⁵ and in literature there is ample evidence for the existence of these family emblems.¹⁶ At the time of the Athenian oligarchy, the

¹ Seltman, *op. cit.* p. 7, § 5, Plate I P₁ A₁—P₆ A₅.

² These are known to be Athenian in origin. H. Thiersch, *Tyrrhenische Amphoren*, 1899.

³ Seltman, *op. cit.*, see p. 7, figure 5.

⁴ Seltman, *op. cit.* p. 9.

⁵ *Ath. Pol.* 10.

⁶ Seltman, *op. cit.* p. 16; Solon, *Fragm.* 36 (Bergk).

⁷ Seltman, *op. cit.* § 10, pp. 16–17.

⁸ Seltman, *op. cit.* Plate I P₁ A₁—P₆ A₅.

⁹ Seltman, *op. cit.* Plate I P₇ A₆—P₉ A₇.

¹⁰ Seltman, *op. cit.* pp. 17–18.

¹¹ Seltman, *op. cit.* p. 16.

¹² Plut. *Sol.* 24; Seltman, *op. cit.* p. 8.

¹³ Seltman, *op. cit.* p. 19.

¹⁴ Seltman, *op. cit.* Introduction, p. XVIII.

¹⁵ *Ibid.*

¹⁶ Aeschylus, *Sept. c. Theb.* 387ff. (shield signs); Paus. V, 25, 9; Plut. *Alcib.* XVI, 2; Schol. on Aristoph. *Lysistr.* 664ff. (ancestral crests upon shields).

Masters of the mint used their family emblems on the coins, as well as on their shields which were constantly seen on the streets of Athens.¹

After Solon's retirement, the city of Athens was torn by factions, one after the other seizing the administrative power,² which accounts for the constant changing of coin types between 590–570 B.C. With the return of the Alcmaeonidae to power, the civic badge, the amphora emblazoned on a shield, was removed to make way for the "three legs" or triskeles, the device of their clan.³ Since a didrachm with this symbol shares a punch-die with the last of the Solonian amphorae, this coinage follows directly that of Solon and is dated about 590 B.C.⁴ The devices of the forepart of a horse, the beetle, and the astragalus follow in rather quick succession⁵ but, though found as shield devices on vases, their significance is obscure.⁶

Subsequently, the appearance of the early cross-bar cart wheel⁷ as a device leads Seltman to suppose a wealthy farmer was in power. The bull⁸ on the shield recalls Philochorus' statement that before the "owls" there were coins which had a type of bull.⁹ The whole or half horse device¹⁰ is the badge of Peisistratus¹¹ before he had actually seized the government, says Seltman agreeing with M. Six. This takes us down to about 570 B.C. when the one lone example of these "heraldic coins" from the Agora fits into the chronology.

¹ Cf. Thucyd. VI. 58.

² Seltman, *op. cit.* p. 23.

³ Seltman, *op. cit.* p. 52. Aristophanes *Lysistrata* and Schol. 661ff.; Seltman, *op. cit.* p. 21. Fortunately we know from this passage in Aristophanes that the badge of the Alcmaeonidae in the sixth century was "white legs" (3 legs) which is quite rightly interpreted as the bent "white legs" or "white leg" of the triskeles.

⁴ Seltman, *op. cit.* Plate I P₉ A₈ and A₇, also p. 22, figure 12.

⁵ Seltman, *op. cit.* p. 25, figure 14.

⁶ Seltman, *op. cit.* p. 26.

⁷ Seltman, *op. cit.* Plate I P₁₅ A₁₆. This type of wheel was used for nothing but the country cart, so that if it is "short hand" for country farmer's cart, then it was no doubt the badge of a wealthy farmer who held some high office. In 581 B.C. after the Archon Damasias was ejected, we hear of three archons out of ten being chosen from the agriculturists' party. Seltman, *op. cit.* pp. 26–27.

⁸ Seltman, *op. cit.* p. 28, Plate I P₁₆ A₁₇.

⁹ Philochorus, in Schol. on Aristophanes *Aves* 1106.

¹⁰ Seltman, *op. cit.* p. 29, Plate I P₁₇ A₁₈—Plate II P₁₉ A₂₂. These types belong together, as they share the same punch die (P₁₇) Plate I A₁₈ and A₁₉.

¹¹ Seltman, *op. cit.* pp. 30–31. At this time Peisistratus was one of the rising men in the party of the "Shore." In 570 B.C. he captured Nisaea, the port of Megara and Salamis, an event which the Athenians celebrated by an annual ceremony re-enacting the capture of the island. There is a scene where one man in armour leaps from the ship with a shout of triumph and runs to the cliff of Sciradion. E. Peterson (*Jahrb. d. K. deutsch. arch. Inst.* XXXII, 1917, p. 137) has identified this ceremony on a R. F. cylix by the potter Hieron which was found at Vulci (Seltman, *op. cit.* p. 31, figure 23). Here a group of Athenians run forth with gesticulations and shouts; at their head is one man in armour who has already reached the cliff Sciradion and is mounting it. The significant point is that this man bears a shield on which the device is the forepart of a horse. It is logical to suppose that this figure represents Peisistratus, the polemarch or strategos, since he was responsible for the capture of the island. (Wilamowitz, *Arist. u. Athen* i, p. 267f.). At this time Peisistratus had not yet formed his own party and was a supporter of Megacles, son of Alcmaeon.

Throughout the course of the sixth century the great family of the Alcmaeonidae played an important rôle in Athenian affairs and it would be surprising indeed, if this were not further reflected in the coinage.¹ We have found the triskeles, the coat-of-arms of one member of the clan, on the Athenian money about 590 B.C. The triskeles on these early coins have a well defined central disc. Mr. A. B. Cook² interprets the various forms of the triskeles as "zoomorphic transformations of the solar wheel," a point substantiated by the fact that the triskeles actually revolves around a four-spoke wheel on a 5th century coin of Aspendus.³ The solar wheel in the form of the Iynx-wheel is most closely connected with the temple of Apollo at Delphi.⁴ We know that the Alcmaeonidae were closely allied to the Delphic sanctuary, for it was there they sought refuge when exiled before 600 B.C., and again in 546 B.C. In fact they actually rebuilt the façade of the temple in marble about 514 B.C., as the temple had previously been destroyed by fire.⁵

From Apollo then they borrowed the triskeles' other form, the solar wheel, which was their alternative symbol.⁶ It was a natural modification that this magic wheel should become a simple chariot wheel.⁷

I am stressing this wheel type of coin⁸ because the one example of these "heraldic" coins found in the Agora is this early wheel type.

R. Obol — Size 9 mm. Weight 0.70 gr. Athens ca. 572 (or earlier) to 561 B.C. Seltman.

Ob. Alcmaeonid wheel. Four-spoked wheel with hub, stays spring from each spoke curving outward to meet the rim.

Re. Shallow incuse square.

Reference: Seltman, p. 36. Pl. IV, *v*, *ξ*.

Svoronos, Pl. 1, nos. 60 and 61 (dates Epoch before Solon).

The wheel had a two-fold symbolism for the Alcmaeonidae: first, it was sacred to Apollo; and second, it was merely short hand for chariot.⁹ These coins with the wheel, according to M. Six¹⁰ were struck in 592 B.C. in order to celebrate the victory of the chariot race, won for the first time by an Athenian at Olympia. This Athenian was

¹ Seltman, *op. cit.* p. 33.

² Zeus I, p. 309; Baldwin, Agnes, (Brett), *Symbolism on Greek Coins*, p. 104. She interpretes the triskeles as the symbol of solar worship. Since Apollo was the Sun God, it would naturally be connected with his worship.

³ Seltman, *op. cit.* p. 33 and figure 25 reproduced from Zeus I, p. 305, figure 235.

⁴ Cook, Zeus I, p. 258 ff. If the Iynx-wheel is a representation of the sun it is reasonable to expect its connection with Apollo.

⁵ In 548 B.C.

⁶ Seltman, *op. cit.* p. 34.

⁷ Seltman, *op. cit.* p. 35. The modification is not confined to coinage, for the sacred temple wheel of Delphi itself is depicted as that of an ordinary wheel. Seltman, *op. cit.* figure 26. Cista from Volterra, reproduced from Cook, Zeus I, p. 260, figure 188.

⁸ Seltman, *op. cit.* Plate II P₂₀ A₂₃—P₂₇ A₂₈.

⁹ Seltman, *op. cit.* p. 35.

¹⁰ Babelon, *Traité II^e partie, Description Historique* 1, p. 715.

none other than Alcmaeon, head of the clan of the powerful family of the Alcmaeonidae and this victory greatly fortified their position in Athens. Mr. Seltman, however, prefers to put it later.

This coinage with the device of the older type of chariot wheel was very plentiful, for it is found on several denominations;¹ such as didrachms,^a drachms,^b obols,^c and hemiobols.^d Chariot wheels also occur as shield signs on various Attic Black-figured and early Red-figured vases.² Both on coins and vases we find two early forms of strengthening the wheel employed: one has triangular pieces to strengthen the spokes where they join the rim; the other has curved stays on either side of the spokes, as on the Agora coin. We know that this last type of strengthened wheel is early for it is found on chariot wheels of Proto-Attic vases.³

Seltman wishes to attribute the badge of the wheel to Megacles, son of Alcmaeon, and leader of the "Shore" party. The house of Alcmaeon was long famous for its love of racing. It was in honor of Megacles, grandson of the Megacles whose wheel perhaps is on the coins, that Pindar wrote the seventh Pythian ode.⁴ Thus the wheel emblem of Megacles had a dual significance as the symbol sacred to the Pythian Apollo, and as a boast of his triumphs in chariot racing.⁵

When we arrive at the middle of the sixth century we are treading on less uncertain ground, as far as the coinage of Athens is concerned. At least the coins which now appear with AΘE clearly stamped on them cannot be attributed to any other city than Athens, though the question of their dates and mints may still be a question of dispute.

^a Ob. Head of Athena r., eye large and full, iris (and some times pupil) indicated; lips thick; ear large with ☉ earring; hair indicated by lines or dots or both. She wears a close fitting helmet (Athenian) with neck piece and crest, the crest support ornamented with dots between chevrons; on the back of the helmet above neck piece a small volute.

Re. AΘE to r. downwards. Owl r., head facing upright, legs close together, tail short, head large; body plumage of dots, wing plumage of lines or lines and dots. In field above l. hanging downwards an olive on stalk between 2 leaves. Incuse square.

Mr. Head says that a highly probable date for the inauguration of this new series was the event of the first celebration on a grand scale of the great festival of the

¹ Seltman, *op. cit.* p. 36.

a) Plate II P₂₀ A₂₃—P₂₇ A₂₈.

b) Plate IV, δ, ε.

c) Plate IV, ν, ξ.

d) Plate IV, αα.

² Seltman, *op. cit.* p. 35, note 4.

³ Seltman, *op. cit.* p. 36, figure 29, reproduced from *J. H. S.* XXII 1902, Plate III. This fragment possesses qualities of the Dipylon Style. A fragment of early Attic pottery found in the Agora in 1932 also has a similar wheel.

⁴ Seltman, *op. cit.* p. 36. *Pyth.* VIII 13–16. "Victories at the Isthmus five, and one famous victory at the Olympian festival of Zeus, and two from Cirrha, won by yourself, Megacles, and by your ancestors."

⁵ Seltman, *op. cit.* p. 36.

⁶ Seltman, *op. cit.* Catalogue p. 159, Plate II A₃₁ P₃₁—Plate III A₄₅ P₅₁.

Panathenaic games in the summer of 566 B.C.¹ This was in the archonship of Hippocleides of the deme of Philaidae.² It has been suggested that Peisistratus leader of the third party, though still a private citizen, inspired the idea of this festival.³ This is probable, but what is even more certain is that it was only the discernment of a Peisistratus that could have inspired this new coinage which was destined to stamp the coins of Athens for many generations.

The older numismatists and Beulé assert that this type was created by Peisistratus.⁴ M. de Fritze in 1897 and Lermann in 1900, followed by Babelon, reassert this contention, and, I believe, the weight of opinion at present would support this dating for the creation of this new coin type.

It is possible that Peisistratus started to coin money before he gained the throne,⁵ for he realized that he could only maintain power through the amassing of a large fortune. Presumably he worked the silver mines at Laurium which lay near his estate at Brauron⁶ and there is ample evidence that these mines were worked before the middle of the 6th century.⁷ His power rested not only on his great wealth, but also, on his reputation as a soldier, on his engaging personality, and on his generous nature.⁸ In addition he had been given the protection of a private guard when his life had been threatened.⁹

His desire was that his money should not only gain popular favor with the Athenians, but also be held in high esteem abroad. To achieve the first, he appealed to the national consciousness of the people through their zealous worship of Athena stimulated by the creation of the greater Panathenaia. Thus he sealed his coins with the head of Athena, a badge that was the pride of every Athenian. In order to command its acceptance abroad, he doubled the weight of the older standard coin by creating the handsome tetradrachm, which became the Athenian silver stater.¹⁰

This was the first money to be issued with a clear type on both obverse and reverse and among the earliest coins to have the human head depicted.¹¹ The use of the initial letters of the city's name was also an innovation in ancient mint practice. On these

¹ Head, Barclay, *Historia Numorum*, 1911, p. 369.

² Seltman, *op. cit.* p. 37.

³ Seltman, *op. cit.* p. 37, note 3. G. v. Brauchitsch, *Die Panath. Preisamphoren*, 1910, p. 77.

⁴ Babelon, *Traité*, *op. cit.* p. 725.

⁵ Seltman, *op. cit.* p. 40.

⁶ Seltman, *op. cit.* p. 39.

⁷ Ure, *Origin of Tyranny*, p. 46ff.

⁸ Seltman, *op. cit.* p. 40.

⁹ Herodotus 1, 59; Aristotle, *Ath. Pol.* 14, 1.

¹⁰ Seltman, *op. cit.* p. 40.

¹¹ Seltman, *op. cit.* p. 41. Babelon, *Traité*, *op. cit.* pp. 726-727. This type of Athenian coin would have been an anachronism before the middle of the sixth century, for it is not until this time that the reverse incuse squares were replaced by a type on any of the coins of the Greek world. Also the use of human or divine heads as coin types only began to be used at this period. Seltman, *op. cit.* p. 41, note 3. There are only two or three heads on coins that can be cited as older than the Athenian heads.

earliest coins from the "Imperial" mint of Peisistratus, the heads of Athena were crude indeed, but no more so than other examples of contemporary Attic Art.¹ The earliest owl of the reverse type is likewise a quaint bird.² Little did Peisistratus realize how long these types were to be perpetuated on the coinage of Athens.

At first Peisistratus did not intend to have his coins displace the older Eupatrid coinage, but merely to take their place beside it.³ Impressive as these new coins were they did not greatly affect the market at first. The old Eupatrid mint of his rivals with its conservative traditions was to have about fifteen more years of active life.⁴

There now appear coins with the shield devices⁵ of Athens'⁶ owl and the gorgoneion,⁷ both civic badges, as well as the personal badges of the Eupatrids with the type of wheel⁸ and with the bull's head.⁹

For a number of years Peisistratus' career suffered many vicissitudes, but finally in 546 B.C. he firmly and triumphantly established his tyranny. Henceforth "owls" alone were to be the coins of Athens.¹⁰ Peisistratus issued money continuously and in great abundance for nineteen years until his death in 527 B.C., for he now had great resources at his disposal.¹¹ Through the course of these years the technique and style of the coinage naturally developed. The heads of Athena now had all the qualities of the 6th century Ionian art which a comparison with the Acropolis Korai will bear out. The heads are small, the profiles delicately drawn and the *coiffures* show a variety of fashions. These archaic heads with their cheerful smile have a characteristic charm of their own.¹² The character of the owl, too, changes gradually and the bird becomes rather a half-fledged owlet with long legs, big claws and disproportionately large head.¹³

Hippias at first carried on the policy of his father, but unlike his father favored the art of the Dorians. This Dorising tendency changed the character of the Athena heads

¹ Seltman, *op. cit.* p. 41. Babelon, *Traité*, *op. cit.* p. 725. If these early Athena heads be compared to the contemporary art of Athens, it is very noticeable that they reflect the characteristics of the early Attic School of sculpture which was an autochthonous development before it acquired any of the influences of the Ionic School. However, the coins of but a slightly later period begin to reflect the gradually developing Ionic characteristics.

² Seltman, *op. cit.* p. 43.

³ Seltman, *op. cit.* p. 41.

⁴ Seltman, *op. cit.* p. 44.

⁵ Seltman, *op. cit.* p. 49.

⁶ Seltman, *op. cit.* Plate III P₅₄ A₄₈ P₅₆ A₄₈ and A₅₀.

⁷ Seltman, *op. cit.* Plate IV P₆₀ A₅₄—P₆₇ A₆₁.

⁸ Seltman, *op. cit.* Plate III P₅₂ A₄₆—P₅₃ A₄₇; Plate IV A₅₂, A₅₃, A₅₉.

⁹ Seltman, *op. cit.* Plate III A₄₉; Plate IV A₅₁, A₅₈.

¹⁰ Seltman, *op. cit.* p. 57.

¹¹ Seltman, *op. cit.* p. 61, also pp. 54—55. During the ten years that Peisistratus was retired from Athens (556—546 B.C.) he was in the Pangaion district where he was amassing money from the wealthy silver mines of Mt. Pangaion, in order to regain the throne which he had lost. For this Paeonian issue of coins see Seltman, *op. cit.* Chapter VIII and Plates V, VI, and VII.

¹² Seltman, *op. cit.* p. 62.

¹³ Seltman, *op. cit.* p. 63.

on the coins which now became distinctively larger and devoid of that cheerful archaic smile. The owls assume more moderate proportions and display marked improvement in detail.¹

My purpose in discussing these 6th century "owl" coins of Athens, though our Agora coins of 1931 show none of these specimens, is to show the development of the type and account for the various elements in the composition. The coinage of Hippias is quite distinctive and one group² of his coins, which is probably a Panathenaic issue, is quite superior in technique and style, but the unique and unusual elements³ do not become permanent in the coin types of Athenian currency.

The Persian war could not have failed to leave its imprint on Athenian coinage. The amazing victory of Marathon was commemorated on the coinage by the addition of first four and then three upright olive leaves on Athena's helmet and these remained a part of the design until after the age of Alexander.⁴ The tiny waning moon, now appearing for the first time upon the coins, must also be a reference to this memorable date in Athenian history. The battle of Marathon was fought when the moon was past the full and a few days later was due the celebration of the greater Panathenaia when the moon was in its third quarter.⁵ Marathon was specifically an Athenian victory, so that it is right to expect new elements on her coinage to mark this event which was so impressed on the average Athenian mind. Thus these coins can be dated with exactitude.⁶

After the advent of the Persian wars, the development of the technical execution and the acquisition of the elements of the composition on the Athenian tetradrachm

¹ Seltman, *op. cit.* p. 64.

² Seltman, *op. cit.* Chapter X, Plates XIII and XIV. Group H.

³ Seltman, *op. cit.* pp. 72-74, § 55. They are superior in technique and style to the types which had preceded them; they are more carefully struck, since the crests are more carefully preserved on the flans; they have an elaboration of detail, for 2 coins in the British Museum have the helmet adorned with a tall crest support raising the crest above the bowl of the helmet and the aegis is adorned with serpents which rise on Athena's shoulders (Plate XIV A₁₉₈); they have more realism, for the owls are more like living birds. A peculiarity confined to this group of coins is the owl sometimes turned to the left rather than the right (Plate XIII P₂₃₃, P₂₃₄, P₂₃₅, P₂₃₆, P₂₃₇ and P₂₄₅). And on three dies which bear the owl left, there is behind the bird's head, instead of the usual olive twig, a crescent moon with its horns turned up (Plate XIII P₂₃₃-P₂₃₅). The olive twig too has various changes: on some coins the twig sprouts from the ground (Plate XIII P₂₃₉-P₂₄₀, and Plate XIV P₂₅₀); and on others it is a branch, instead of a twig, with 3 berries and 4 leaves (Plate XIII P₂₄₆, P₂₄₇, and Plate XIV P₂₄₈). The legend too is placed in various positions depending on the disposition of the twig, and on some dies we find ⊕ instead of ⊙ (Plate XIII P₂₃₆, P₂₃₇, P₂₄₃, and Plate XIV P₂₄₉). This whole group is distinguished from the Peisistratid issues in one particular; that is, the coins have been struck on broad, thinnish flans and have flat bevelled edges around the reverse designs (Seltman, *op. cit.* p. 75).

⁴ Seltman, *op. cit.* p. 103.

⁵ Seltman, *op. cit.* p. 103, and note 3. Also Head, *Historia Numorum*, p. 370. Even if one should fail to accept the fact that the greater Panathenaia followed the battle of Marathon, we remember that the Spartans could not leave Lacedaemon until after the full moon and they arrived on the battle-field in time to view the dead.

⁶ Seltman, *op. cit.* pp. 103-104.

were complete. Its character was destined to remain unaltered for an unprecedented length of time. With the growth of the Athenian Empire in the fifth century, the money of Athens became an international currency,¹ for it had soon taken root and gained a wide commercial vogue. It was the commercial convenience that caused the money of Athens to become fixed and stereotyped.²

The great mass of 5th century Athenian coinage was silver³ and the beautiful tetradrachms had a wide circulation throughout the Aegean, but the small denominations served merely as local small change.⁴ The coins from the Agora excavation of 1931 were entirely of this latter variety, but since they are neither wholly representative of 5th century Athenian currency, nor an index to the coins from this period that will come from this area, I wish to supplement this group and also the 4th century silver with a few of the silver pieces of the 1932 finds that have already been studied, not for the purpose of augmenting the numbers, for there are only a few, but to fill in some of the gaps of the missing denominations. In this discussion I shall specify the 1931 and 1932 finds.

In order to differentiate the chronological periods of these Athenian coin types, both on the larger and smaller denominations, one must pay great attention to the execution by which it is possible to detect minute changes of style. The drawing of the eye and the technical skill and delicacy of the die-engraver are usually clues as to the date of the coin. However, it is wrong, I believe, to carry this too far, for one must allow for the differences in skill and technical peculiarities of the various die-engravers. Svoronos's arrangement of the coins according to "coiffures" is erroneous. I well appreciate the valuable evidence that is derived from arranging coins according to die sequences, but this, of course, is only of value when one has enough coins to permit of such an arrangement. This will come with the final publication of all the coins from the Agora when the numbers are such as to make such a study worthwhile.

The earliest 5th century coin from the Agora in 1931 was:

A. 1. *R Obol* — Size 10 mm. Weight 0.70 gr.

Ob. Head of Athena r., eye full, features well proportioned, round earring, hair indicated by lines. Close-fitting Athenian helmet crested, two upright olive leaves above forehead. Crest row of dots and horse hair of plume indicated.

Re. $\Lambda\Theta\epsilon$ to r. downward. Owl r., head facing, well proportioned, plump and upright, one leaf behind owl. Incuse square.

References: Cf. B. M. C. (*Attica*), Pl. IV, no. 11, p. 10, nos. 96–111, dates 527–430 B.C.; cf. Svoronos, Pl. 8, nos. 40–47, dates Epoch of Cimon, ca. 471–464 B.C.

I see no reason to doubt this dating of Svoronos, for the eye is purely archaic,—a full eye set absolutely horizontally in the face with both corners visible and the arch of the

¹ B. M. C. (*Attica*). Introduction, p. XXII, § 2.

² Gardner, Percy, *History of Ancient Coinage*, p. 223.

³ Gardner, *op. cit.* p. 222.

⁴ Gardner, *op. cit.* p. 226.

upper lid exactly above the centre of the eye. The workmanship is delicate and refined and characteristic of this period.

From a slightly later date, probably the Age of Pericles until 431 B.C., we have several different denominations of coins.

B. 1. *R Drachm* — *Size 14 mm. Weight 4.25 gr. 1932.*

Ob. Head of Athena r., hair waved over forehead with strand over ear. Close-fitting Athenian helmet with 3 upright olive leaves, floral scroll over back of bowl. Horse hair crest off flan, but row of dots visible. Dotted truncation.

Re. AΘE to r. downward. Owl r., head facing, thin triangular body, head a little large, no waning moon; in field 1. olive on stalk between 2 leaves, downward leaf longer. Incuse square.

References: Cf. Svoronos, Pl. 10, nos. 19–27, dates Periclean Age to 431 B.C.; cf. B. M. C. (*Attica*), Pl. IV, nos. 5 and 6, p. 9, nos. 74–81, dates 527–430 B.C. or later.

A slight difference in the rendering of the eye explains the later date. It is still a full archaic eye with both corners visible, but the arch of the upper lid has now shifted slightly to the right, a little nearer the nose. Also the eye now is not set exactly horizontally, but is slightly upturned at the inner corner, breaking the rigid effect of straightness. These same characteristics apply to the other coins dated at this specific time. A coin of another denomination shows a very similar head.

B. 2. *R Triobol* — *Size 13 mm. Weight 2.00 gr. 1931.*

Ob. Head of Athena r., archaic style (same as B. 1).

Re. A Incuse circle within which owl facing, legs apart, tail hanging between them; wings closed, ΕΘ body plumage of dots, wing plumage lines. Hanging over the head of the owl on either side olive branch with four leaves and a berry. Letters in triangular distribution.

References: Svoronos, Pl. 10, nos. 28–30, dates Periclean Age to 431 B.C.; B. M. C. (*Attica*), p. 9, nos. 82–89, Pl. IV, nos. 7 and 8, dates 527–430 B.C. or later.

The fine delicacy of style and the precision of rendering warrant this date. From the Persian wars until ca. 431 B.C. we find a comparatively uniform type on all the denominations in use; that is, the tetradrachm, the drachm, the obol, and the hemiobol all use the owl turned to the r., head facing, except the four little tetartemoria with olive sprays on the reverse (Svoronos, Pl. IX, nos. 52–59). The details of the other denominations vary slightly, as the olive spray and the omission of the waning moon on the small denominations. It is probably the necessity of issuing other fractional denominations that caused the adoption of additional types to differentiate them.

In B. 2 we see the reverse type has changed, but it is only on these coins of small denominations that we find this occurs; they no doubt varied the types slightly to indicate the value.¹ As there is certainly not much appreciable difference in size among the lower denominations of Athenian coins, a difference in type seemed essential. "The careful discrimination of denominations is characteristic alike of the love of the

¹ Gardner, *op. cit.* p. 224.

Athenians for their silver coins,—the *γλαῦκες Ααυριωτικαί* of which Aristophanes speaks so fondly in the *Birds* (line 1106), and of the fine perfection of their intellectual faculties.”¹

A still smaller denomination is represented by two hemiobols which are similar in type to the obol of the previous period (A. 1).

B. 3. *R Hemiobol* — *Size 6 mm. Weight 0.32 gr. 1931.*

Type similar to A. 1.

Reference: Svoronos, Pl. 10, cf. nos. 48–57, dates Periclean Age to 431 B.C.

B. 4. *R Hemiobol* — *Size 8 mm. Weight 0.40 gr. 1931.*

Type similar to A. 1.

Reference: Same as B. 3.

The most beautiful coin that has been found in the excavations so far is a silver tetradrachm that is still fresh and sharp. It was found lying in a small saucer. The head of Athena was wrought with the utmost attention to the artistic details; such as the delicacy of the elaborate floral scroll of the helmet, the meticulousness of the looped locks of hair, and the dotted ornamentation at the neck and on the crest, and the delicate refinement of the features. The owl, too, is well proportioned and realistic and the plumage is carefully delineated. The type is so familiar that it is not worth while to describe it.

C. 1. *R Tetradrachm* — *Size 24 mm. Weight 16.90 gr. 1932.*

Reference: Svoronos, Pl. 12, cf. nos. 13, 14 and 16, dates in the Peloponnesian war to the Peace of Nicias, 421 B.C.

I see no reason to differ with Svoronos on this dating, for I believe this coin belongs in a class slightly later than B., as it is possible to detect a slight change in the development of the eye. The inner corner has been still further lifted up until it meets the hollow formed by the juncture of the brow and the nose. This inner corner thus falls into partial shadow, so that the actual point is not visible. However, one can still see plainly the entire arch of the upper lid. The workmanship, too, substantiates this date, for it is delicate and precise in all its details and shows no trace of less careful execution which characterizes the coins of a later period.

An obol of the same type as A. 1. I should also place in this period from 431–421 B.C., for it has all the technical characteristics of this tetradrachm in regard to the treatment of the eye. The owl, too, has become less triangular with a shorter wing, giving it a plumper appearance.

C. 2. *R Obol* — *Size 9 mm. Weight 0.70 gr. 1931.*

Reference: Cf. Svoronos, Pl. 12, nos. 37–42, dates 431–421 B.C.

The closing years of the Peloponnesian war were very trying ones for Athens. The prolonged period of the war, the failure of her expedition to Sicily, and the defeat at

¹ Gardner, *op. cit.* p. 226.

the naval battle of Notium in 407 B.C. had completely exhausted her war funds.¹ In the archonship of Kallias (406/5 B.C.) the *demos* voted to turn over the "ex-votos" which were the precious properties of the gods (the offerings and temple furnishings) to the *Hellenotamiae* for conversion into money to defray the expenses of the war.² This vote envisaged all the gold and silver properties of the Attic gods. Unmintable things were naturally eliminated; also certain gold and silver objects, such as one of the eight golden Nikae of Athena Nike, above all the chryselephantine statue of Athena, as well as various other things³ remained inviolate.⁴ These may have been spared the melting down process not through the will of the *demos*, but because of the abrupt termination of the war. The others went into the melting pot, but before gold could be minted in Athens special dies and anvils had to be made, for the city had never issued gold coins before.⁵ The crisis of Arginusae was undoubtedly the occasion for the general expropriation,⁶ but due to the brief delay caused by the need for new minting apparatus, the fleet put off in old triremes and not in new constructions and the money was minted after the departure of the fleet.⁷

The operation of the minting of the golden Nikae extended at least over two years (406/5 and 405/4 B.C.).⁸ In January, 405 B.C., the gold currency was described as *καὶνόν*, the silver as *ἀργαῖον* in the *Frogs* of Aristophanes.⁹ In 405/4 B.C. it was a novelty and was disbursed by the *Tamiae* to the practical exclusion of all other money.¹⁰ The only gold coins that have reached us today are the $\frac{1}{2}$ stater, the $\frac{1}{4}$ stater, the $\frac{1}{6}$ stater or hekte and the $\frac{1}{12}$ stater or hemihekte. On them is the symbol of the laurel branch which points to their source, the golden Nikae from which the metal was taken.¹¹

By 399/8 B.C. the "dies and little anvils with which the gold was struck" were already dedicated to Athena¹² and appear in the Opisthodomus in inventories of the Treasurers of the epoch 398/7 B.C.¹³

¹ Ferguson, William Scott, *The Treasurers of Athena*, Chapter XV, also pp. 21 and 22. "In 434 B.C. the system was inaugurated of creating a public war fund from the surpluses of the tribute, and when in 421-415 B.C. this system bore fruit, it led not to the augmenting of Athena's reserve, but to the accumulation of a new reserve which could be utilized without borrowing. After 421 B.C. Athena's reserve grew by the addition to it of the net yield of Athena's own revenues alone."

² Ferguson, *op. cit.* p. 12.

³ The "karchesion" of Zeus Polias, the solitary, gold crown left in the Pronaos, and the gold leaves from the crown of Niké.

⁴ Ferguson, *op. cit.* pp. 93-94.

⁵ Ferguson, *op. cit.* p. 86.

⁶ Ferguson, *op. cit.* p. 94.

⁷ Ferguson, *op. cit.* p. 90.

⁸ Ferguson, *op. cit.* p. 94.

⁹ Ferguson, *op. cit.* p. 87. *Frogs* of Aristophanes, 717 ff.

¹⁰ Ferguson, *op. cit.* p. 95.

¹¹ Newell, E. T., *The Coinages of Demetrius Poliorcetes*, p. 133, note 4.

¹² Ferguson, *op. cit.* p. 95.

¹³ Ferguson, *op. cit.* pp. 86-87.

These gold coins were, of course, swallowed up for war expenses¹ and since the Athenians could not obtain silver from Laurium, because Deceleia was occupied by the Spartans,² their only recourse was to melt down the silver votive objects, but this gave them only a limited supply. Thus they resorted to bronze as a money of necessity. Moreover, this too was initiated in the year 406/5 B.C. in the archonship of Kallias,³ and bronze coins plated with silver were the result.⁴ They belong to the same system of monetary expedients as the issue of gold coins.⁵ This was an issue of token money and it is because it was a debased silver currency⁶ that it was attacked by Aristophanes.⁷

To adopt a silver-plated coin at this period of stress seemed a natural expedient in order to disguise the wretched bronze as much as possible, since it was a great humiliation to Athenians to have to resort to such a base metal when they had so prided themselves on their silver coins.⁸

In the *Ecclesiazusae*, Aristophanes narrates how the bronze money of necessity was cried down in 393 B.C., the Town crier being sent around to proclaim that silver was once more to be the only legal tender.⁹ The bronze pieces were struck at the time of Athens' greatest need and were withdrawn after the victory of Conon at Cnidus.¹⁰ Thirteen years seemed a long time for the Athenians to have to accept this makeshift currency, so that when it was demonetized, they greatly rejoiced over the return of their beautiful silver tetradrachms which they made identical with the older ones. It is even possible that some of the old dies were still in the mints.

A silver tetradrachm from the Agora I would place in this period after 393 B.C.

D. 1. *Æ* Tetradrachm — Size 24 mm. Weight 16.60 gr. 1932.

Type same as C. 1.

Reference: Cf. Svoronos, Pl. 16, no. 16, dates 403–365 B.C.

¹ Head, *Historia Numorum*, 1911, p. 373.

² Thucydides, VII 91. Gardner, *History of Ancient Coinage*, p. 231.

³ Aristophanes, *Frogs* and the Schol., 725 ff.

⁴ Svoronos, Jean N., *Trésor de la Numismatique Grecque Ancienne. Les Monnaies d'Athènes*, Plate 15, nos. 12–27. Ferguson, *op. cit.* p. 88, note 2. "Svoronos (*Jour. intern. d'arch. numismatique*, XIV, 1913, pp. 123 ff.) argues that a genuine copper currency had been introduced in the time of Pericles, on the initiative of Dionysios, surnamed Chalkos." These minute bronze pieces called κόλλυβια (Svoronos, *Trésor*, Plate 18) have long been known in Athens. The types are dissimilar to coin types of the 5th century and seem to have many of the characteristics of the tesserae (Svoronos, *Trésor*, Plates 100–102). A number of these small pieces were found in the Agora excavations, but they had been rubbed so smooth that their types could not be identified.

⁵ Ferguson, *op. cit.* p. 88. Two of these silver-plated bronze coins were found in the Agora excavations on May 9, 1933.

⁶ Ferguson, *op. cit.* p. 88, note 2.

⁷ Aristophanes and Schol. *Ecclesiazusae*, 815 f. and *Frogs*, 725.

⁸ Gardner, *op. cit.* p. 222. In Aristophanes' *Frogs*, 730, he speaks in the most glowing terms of the Athenian coins and their great vogue. He refers to them as not alloyed, as the most beautiful coins, in fact the only ones rightly struck and ringing truly, and as accepted among Greeks and barbarians alike.

⁹ Head, *Historia Numorum*, p. 373. Aristophanes, *Ecclesiazusae*, 819.

¹⁰ Gardner, *op. cit.* p. 295.

The most noticeable change that has come in these fourth century coins is the lack of delicacy and fineness of execution. The type by now is irretrievably conventionalized. Moreover, we see another gradual development in the rendering of the eye which was first apparent on the gold coins. About one quarter of the eye from the inner corner is now in shadow; however, the eye has not yet begun to recede under the brow as it does later. The development is now approximately half way between the archaic full eye and the later profile eye. Other details that strike one are: the heaviness of the features, the coarse locks of hair, and the stiffness of the olive leaves. The owl, too, has a more shaggy appearance.

I started out in this paper by saying that the great mass of coins found in the Agora were bronze and yet up to this point I have discussed nothing but silver. To fix a date in the fourth century when a regular issue of bronze money was introduced is puzzling. Julius Pollux¹ mentions bronze coins in use in the time of Philemon, that is the age of Alexander. They seem to have varied in value from three quarters of an obol (six chalci) to a single chalcus.² I believe that the earliest bronze coins found in the Agora belong to this period, though whether they represent the first bronze issue or not it is impossible to determine. The coins of this group have the head of Athena in a Corinthian helmet on the obverse, and an owl, with or without a wreath of wheat or olive, on the reverse. They themselves testify to their date in the Alexandrian period after 339 B.C. and probably were in use until ca. 288 B.C. The head of Athena wearing a Corinthian helmet occurred on the gold coins of Alexander, a type that was further adopted by Philip III, Antigonos, and Demetrius Poliorcetes. It would be most curious not to find the Athenian coinage influenced by the coin types of their Macedonian suzerains. The introduction of symbols on some of the later coins of this group likewise reflects the influence of Macedonian coins on which symbols were very frequently used. This group consists of:

Group E

<i>Obverse</i>	<i>Reverse</i>	<i>Specimen</i>
I. Head of Athena r., wearing crested Corinthian helmet.	Owl to r., with 2 olive branches on either side. A In triangular arrangement around Θ E owl.	3
Svoronos, Pl. 22, nos. 62 and 63; not in B. M. C.		
II. Same.	A Owl with closed wings to r., within Θ wheat wreath.	6
Svoronos, Pl. 22, nos. 64-70; B. M. C., p. 22, nos. 229-235, Pl. VI, no. 8.		2 others probable but not certain.

¹ *Onom.* IX, 65.

² Gardner, *op. cit.* pp. 295-297.

<i>Obverse</i>	<i>Reverse</i>	<i>Specimen</i>
III. Same.	A Owl r., with closed wings. Behind Θ owl, branch.	2
Svoronos, Pl. 22, nos. 71—72; not in B. M. C.		
IV a. Same.	Owl r., closed wings. A In field right, cornucopia? Θ E	1
Svoronos, Pl. 22, nos. 73—74; B. M. C., p. 22, no. 239, Pl. VI, no. 10.		
IV b. Same.	A In field r., kalathos. Θ E	1
Svoronos, Pl. 22, no. 75; not in B. M. C.		
IV c. Same.	A In field r., wreath. Θ E	1
Svoronos, Pl. 22, nos. 76 and 77; B. M. C., p. 22, nos. 236—238, Pl. VI, no. 9.		
IV d. Same.	A In field r., spear of wheat. Θ E	2
Svoronos, Pl. 22, nos. 78 and 79; not in B. M. C.		
IV e. Same.	A Owl to r. Θ E Symbol to r., illegible.	9 3 others probable but not certain.
Svoronos, Pl. 22, nos. 73 and 79.		
V. Same.	A Owl r., with closed wings, in olive Θ wreath. H	1
Svoronos, Pl. 22, nos. 80—84; not in B. M. C.		
VI. Same helmet, but adorned with serpent.	A Owl l., in olive wreath. Θ H	7
Svoronos, Pl. 22, nos. 85—88; B. M. C., p. 22, nos. 240—244, Pl. VI, no. 11.		

It is barely possible that the wreath of wheat and the adjacent symbols as the cornucopia, the kalathos, the wreath, and the spears of wheat are connected with the Eleusinian Mysteries.

To the late fourth century, the period of Alexander and his successors, belongs also a silver tetradrachm which possesses all the qualities of the late "owl" coinage.

F. 1. *AR Tetradrachm* — *Size 21 mm. Weight 16.20 gr. 1932.*

Type similar to earlier ones.

Reference: Svoronos, cf. Pl. 20.

The semblance of archaism is now only a delusion, for the eye is now rendered in profile. This treatment, however, was apparent on the tetradrachms of Philip¹ (359—336 B.C.) and from that time on we find the die engraver trying to free himself from the conditions imposed upon him of adhering to old familiar types. He has tried to modernize the fixed hieratic type which he was set to copy and ventures small innovations in the

¹ Svoronos, *Trésor*, Plate 19.

features of the goddess without departing from the general outlines of the older type.¹ The workmanship is coarse and careless in every respect and the die is most poorly adjusted to the very irregular flan. The features are less archaic to be sure, but there is a sharpness and stiffness about the execution that is striking and it is totally lacking in the subtle charm that characterizes the earlier archaic types. The owl has suffered sorely and is now no more than a frightful caricature of a bird with a huge head, poorly proportioned body, and speckled ruffled plumage. The little waning moon which used to be tucked neatly in at the neck of the owl, has now wandered half way down the back.

By comparing this coin with the gold coins of the second issue which were struck at the beginning of the 3rd century, we can readily see that the details of style are similar. Thus our silver tetradrachm belongs to a period either just before or just after 296 B.C. I should be inclined to put it before.

At the end of the fourth century Athenian politics were influenced tremendously by the interference of the foreign, contemporary, great powers who were constantly fighting against each other. In 301 B.C. the Moderates of Athens grew tired of this and took the government into their own hands.² Lachares, of unknown deme and parentage, being the most energetic of them became their leader.³ Constitutional changes to disarm the *demos* were necessary to ensure their domination.⁴ Dissatisfaction with these changes and dissensions among the governing faction brought civil war in Athens in 296 B.C.⁵ Demetrius Poliorcetes, then general of the Macedonian forces, came to Athens to quell this sedition. Lachares, strengthening his position and crushing out his opponents within the city, made himself dictator of Athens. Demetrius concentrated his forces not to lay siege to the city, but to starve it out. Conditions within the city were acute, provisions ran short, and the money gave out in the public chests.⁶ The treasurers of the city were forced to hand over on Lachares' orders "the golden Nikae and shields and the gold plates from the chryselephantine statue of Athena" to pay the mercenaries whom "the tyrant" kept in his service and who helped him defend Athens against Demetrius Poliorcetes in 296/5 B.C. (*Pap. Oxy.* XVII, 2082; *Class. Phil.*, 1929, pp. 1 ff.). The expropriation of the "ex-votos" on the Acropolis was much more complete than that of 406/4 B.C.⁷

This melting down resulted in the second issue of gold coins which are always the storm signals of Athenian finance and came as a result of financial exhaustion.⁸ This

¹ Head, *Historia Numorum*, 1911, p. 374.

² Ferguson, W. S., *Hellenistic Athens*, p. 125.

³ Ferguson, *op. cit.* pp. 130-131.

⁴ Ferguson, *op. cit.* pp. 129-130.

⁵ Ferguson, *op. cit.* p. 132.

⁶ Ferguson, *op. cit.* p. 133.

⁷ Ferguson, *The Treasurers of Athena*, p. 126.

⁸ Ferguson, *Hellenistic Athens*, p. 448.

issue consisted of three denominations: the stater, $\frac{1}{4}$ stater, and $\frac{1}{6}$ stater.¹ They bear the kalathos, symbol of their origin, from the sacrificial golden baskets carried on the heads of the maidens in the processions.²

I shall take a moment to describe the character of these coins for they serve as criteria of dating for other coins. On the obverse is the head of Athena, right, of fine style (eye in profile), but of rough execution. The type is similar to that of the tetradrachms on the earlier coinage. There is a sharpness and staccato quality to the technique which makes the details of the ornaments strike one above all else on the die. The owl on the reverse is a very dishevelled creature with the large ruff of plumage around the head made by very coarse and rigid radiating lines. The body plumage has a most speckled aspect with a short stubby tail, looking as if it had been clipped. He certainly is a very poor frightened looking bird. In the field to the right is the new symbol of the kalathos. The waning moon is now half way down the owl's back, instead of at the neck as in the earlier coins.

From this time on there is an abundant use of bronze coins which the quantity found in the Agora will verify. Contemporary with the 2nd issue of gold coins are the bronze coins with the double-bodied owl on the reverse.

Group G

<i>Obverse</i>	<i>Reverse</i>	<i>Specimens</i>
1. Head of Athena r., wearing close fitting crested helmet; 3 upright olive leaves in front, floral scroll behind. Hair formed by vertical lines. Svoronos, Pl. 22, nos. 41-46.	A Double bodied owl, head facing. Θ E Above on either side an olive spray.	2
2. Same. Svoronos, Pl. 22, cf. no. 43.	A Same. Θ E	1
3. Same. Svoronos, Pl. 22, nos. 35-42, 47, 48; B. M. C. p. 21, nos. 221-223.	A Same. Θ E Beneath kalathos.	3 5 others probable but not certain.

The treatment of the hair is very similar to that on the small denominations of the gold coinage, as well as the sharpness of the execution. The shaggy and careless treatment of the plumage of the owl also suggests the gold coinage.

Demetrius Poliorcetes had always retained a considerable band of followers in Athens since 307 B.C. when he had liberated the city from the democracy of Demetrius of

¹ Svoronos, *Trésor*, Plate 21, nos. 1-22.

² Newell, E. T., *The Coinages of Demetrius Poliorcetes*, p. 133, note 4.

Phaleron.¹ The Athenians had even given him the title of king and deified him in Athens.² So that when Demetrius defeated Lachares in 294 B.C., the city opened its gates to Demetrius and expected mercy at his hands.³ They had expected freedom and autonomy, but the garrison on the Museum Hill belied this fact.

Undoubtedly, Athens still maintained her immemorial right to coin local money. Demetrius had always treated that proud and wayward city with the utmost leniency and showed the constant desire to remain in her good graces, even under most severe aggravations. He may have retained garrisons on the Museum and Munychia but that gives no one ground to assert that the city was deprived of the privilege of coining money. The fact that Athenian tetradrachms similar in type and fabric to the gold coins have been found in a number of hoards buried throughout the course of the third century gives us every reason to suppose that the old "owl" coinage continued even though the city fell to Demetrius in 294 B.C.⁴

Some time after this date, however, we do find some outside influence at work on the types of Athenian coinage. The flans have become slightly larger and the fabric is not as heavy and thick as on the older "owl" coinage. The designs are more carefully struck to fit the flan. But the most noticeable difference is in the type of helmet. It is not entirely new but new details have come in. The changes of course are gradual. The band on the front of the helmet now becomes more and more like a visor and on many coins the round hinge above the ear is clearly defined. At first the olive leaves are still represented, but later we find they have disappeared. Also the bowl becomes larger and rounder and is set further down on the brow, showing less and less hair, and soon it, too, is hidden beneath the helmet. The guard at the back of the neck is longer and more emphasized and the decoration at the back of the bowl has changed from the old elaborate scroll to the aplustre. Whether this is just the normal change that has come into the type of Attic helmet in the third century I have not yet been able to determine, but it may be a type derived from foreign coin types at this period.

A silver tetrobol from the Agora in 1931 shows the transitional qualities between the early Attic helmets of the fifth and fourth century tetradrachms and the fully developed late type of Attic helmet. There are no longer any lingering traces of archaism. There seems to be some new influence directing the die-engraver's art. He is using a new model and the result is a delicately executed head rendered with great precision of detail. It is most pleasing and, indeed, rather unexpected. The owls, too, which adorn the reverse have now lost all the caricature qualities that belonged to their immediate predecessors. On this Agora coin there is a charming pair of little owlets carefully rendered with much more normal proportions.

¹ Ferguson, *Hellenistic Athens*, p. 63.

² Ferguson, *op. cit.* pp. 107-108.

³ Ferguson, *op. cit.* pp. 134-135.

⁴ Newell, *op. cit.* pp. 133-134. I take this opportunity of expressing my sincere thanks to Mr. Newell for his most helpful suggestions and kind assistance.

H. 1. *Æ Tetradrachm* — Size 14 mm. Weight 2.51 gr. 1931.

Ob. Head of Athena r., wearing crested Attic helmet with large high bowl; narrow horse-hair crest sweeps over the bowl and ends in simple curved strand in back of neck. Helmet has visor made of two narrow bands which project from forehead, hinged over the ear, and adorned in front by three dart-shaped olive leaves. Short neck guard. Hair does not show under helmet, but hangs in loose locks in back. Wears earring and necklace.

Re. A In triangular arrangement around two owls turned toward each other. Well proportioned Θ E small heads, triangular shaped bodies, body plumage made of dots.

Reference: Svoronos, Pl. 23, cf. no. 45.

We find bronze coins of Demetrius Poliorcetes¹ with somewhat similar helmets which Mr. Newell says possess strong stylistic affinities with an Athena head found on certain bronze coins of Lysimachus.² However, it is not usual to find types on bronze coins influencing the types on silver coins, for the bronze coins had a more limited circulation. But the change in the style of helmet both on the bronze and silver coins of Athens is now definitely apparent and also the use of adjunct symbols on the reverse becomes the rule. The following coins from the Agora belong to this group.

Group H'

<i>Obverse</i>	<i>Reverse</i>	<i>Specimens</i>
1. Head of Athena r., wearing close fitting late Attic helmet with cheek pieces raised, triangular visor with hinge set down on forehead with no hair showing. Long neck guard. Svoronos, Pl. 22, nos. 89—92.	A Θ Owl l., with closed wings, in a E wreath? In field l., amphora.	3
2. Head of Athena l., wearing close fitting late Attic helmet with cheek pieces raised. Visor down on forehead. Crest made of lines falls to nape of neck. Svoronos, Pl. 22, nos. 93—98 (calls barbarous); B. M. C. no. 220, Pl. VI, no. 5.	A Owl facing, wings closed, on either Θ H side ●●, beneath spear of wheat; the whole in olive wreath.	2
3. Head of Athena r., wearing crested Corinthian helmet. Svoronos, Pl. 23, no. 46.	[A] Owl towards r., head facing, [Θ E] closed wings, on thunderbolt.	1
4. Head of Athena r., wearing close fitting late Attic helmet with hinged visor, set low on forehead. Crested. Long neck guard; on bowl behind aplustre. Svoronos, Pl. 23, nos. 47—49.	A Owl to r., head facing, closed wings, Θ E on thunderbolt.	3
5. Same. Not in Svoronos or B. M. C., cf. Pl. 23. has no cicade in field.	Same. In field r., cicade. Svoronos, nos. 47—49 for owl on thunderbolt, but this example	1

¹ Newell, *op. cit.* Plate XVII, nos. 15, 16, and 17.

² Newell, *op. cit.* p. 160; cf. L. Müller, *Die Münzen des Thrakischen Königs Lysimachus*, nos. 61—63, 71—84, 113, and 319.

<i>Obverse</i>	<i>Reverse</i>	<i>Specimens</i>
6. Same. Svoronos, Pl. 23, no. 51.	A Owl to r., with closed wings, head ΘE facing, on prow of ship.	1
7. Same. Svoronos, Pl. 24, nos. 29-31.	[A] Two owls facing. [Θ E]	1 1 probable but not certain.
8. Same. Svoronos, Pl. 24, nos. 34-40.	AΘ Between 2 owls in wreath with kerchnos between them.	1
9. Same. Svoronos, Pl. 24, nos. 42-50.	AΘE Beneath 2 owls in wreath with kalathos between them.	1
10. Same. Svoronos, Pl. 24, nos. 51-59.	AΘ Between 2 owls in wreath.	3 1 probable but not certain.

That this group of coins belongs in the third century is evident by their transitional character from the old "owl" coinage to the New Style, but just where in the third century they belong is not so readily determined. Svoronos¹ has assigned them to the period between the rule of Antigonos Gonatas and the alliance with the Romans 255-229 B.C. That presupposes that the coinage of Athens did not terminate with the close of the Chremonidean war when Antigonos Gonatas subdued Athens in 261 B.C. It seems necessary, in order to determine this point, to look ahead to the Athenian coinage of the New Style which was introduced in 229 B.C. by Eurycleides and Micion. The adoption of radically new types with the definite abandonment of the conservative types of the "owl" coins seems obviously to show that considerable time had elapsed between the cessation of the old "owl" coinage and those of the New Style. Ferguson² says that Athens lost the right of issuing money when Antigonos Gonatas crushed Athens in 261 B.C. I believe it is reasonable to suppose that this was actually the case. This necessitates, then, our placing this group of coins under discussion before 261 B.C.

It seems best to place them after 289/8 B.C. when Athens revolted from Demetrius Poliorcetes with the help of Lysimachus who stocked the city with money. After this date Demetrius no longer vitally influenced the affairs of Athens. His death in 283/2 B.C. followed by that of Lysimachus in 281 B.C. left Antigonos Gonatas, son of Demetrius, to struggle with the Athenian irritations caused by the curtailment of their liberty by the Macedonian suzerains. But first Antigonos had to establish his claim to the throne of Macedon and this took him to Asia Minor, an absence which caused him the loss of his kingdom of Greece. During this time Athens saw fit to regain her cleruchies in the Thracian Sea.³

¹ Svoronos, *Trésor*, Plate 23.

² Ferguson, *Hellenistic Athens*, p. 184.

³ Ferguson, *op. cit.* pp. 144-155.

With no foreign intruders clamoring at her gates, Athens seemed to feel that at last she had achieved her independence. Even after Antigonos had ascended to the throne of Macedon and had re-established his control of Greece, Athens was able to arrange an amicable settlement with him because she had had a general governmental house-cleaning, introducing a limited democracy of moderate men with peaceful tendencies in power. This period was a brilliant one in Athens and no doubt these new coins represent a revival of the spirit of the city because of the preservation of her liberty. This general amnesty lasted until the Chremonidean war which was instigated in 266 B.C. by Ptolemy Philadelphus who offered assistance in a war of independence against Macedon, a war which ended in 261 B.C. with Athens entirely at the mercy of Antigonos Gonatas.¹

The personnel of the administration was changed from top to bottom.² We are not able to say with certainty that the public property, such as the silver mines, was confiscated by the Macedonian crown, says Ferguson, but "at any rate Athens lost the right of issuing money and the Macedonian tetradrachms, the so-called Antigonids, took the place in Athenian circulation formerly held by the Attic 'owls.'"³ The coins mentioned in the Inventory of the Asklepion at Athens as τέτραχμα Ἀντιγόχεια, specimens of which appear among the dedications in the years B.C. 261/0, 256/5, 255/4, and 254/3, are probably those with the head of Pan on the Macedonian shield.⁴ They may have been made in an Athenian mint, but belonged to the Macedonian monetary system, which, I believe, the bronze coins of this period help to confirm. This issue has the kalathos like the Attic bronze money and like the gold coins of the second issue.⁵ The change advertised abroad the humiliation of the city, but it hurt more than the pride of the people: it was a disastrous blow to the foreign commerce of Athens, for the integrity of Attic money had given it a wide circulation, and its general use gave the place of issue an advantage over business rivals. To maintain this circulation the Athenians had preserved with great conservatism the rude processes and devices of their antique coins. Zeno still contrasts the purity and crudeness of the Attic tetradrachms with the beauty and impurity of the new coins of the successors of Alexander.⁶ There was, therefore, we may be sure, regret elsewhere than at Athens when the old reliable pieces, which had once dominated the money market, ceased to be issued, and more than one generation passed before those already in circulation ceased to be used. With the "owls" disappeared her commercial supremacy and with

¹ Ferguson, *op. cit.* see pp. 156–182.

² Ferguson, *op. cit.* p. 183.

³ Ferguson, *op. cit.* p. 184. *I.G.* ii, 836. 45, 80, 86, 93.

⁴ Head, *Historia Numorum*, p. 232; Babelon, *Traité I*, p. 485; Ferguson, Univ. of Calif. Publ., *Classical Philology* I, p. 148.

⁵ Ferguson, *Hellenistic Athens*, p. 184, note 2; cf. Köhler, *Zeitschr. f. Numism.*, 1898, p. 10, also *J.H.S.*, 1910, p. 196, no. 36.

⁶ *Diogenes Laert.*, VII 18.

the Long Walls, which Antigonos let fall in ruins, vanished her political importance which had been maintained of late only by the most heroic sacrifice and courage.¹

It is not so easy to calculate just what the coinage situation in Athens was during this period. It is possible that there was sufficient old coinage to continue in circulation for 32 years. If the *τέτραχνα Ἀντιγόνηα* which were dedicated in the Asklepieion were in wide circulation in Athens at that time, it is extraordinary that none was found in the Agora. In fact only two coins of Antigonos Gonatas, both bronze, appeared in this first season's excavation.

Ob. Head of Athena r., wearing crested Corinthian helmet.

Re. BA. Above on either side of Pan r., crowning a trophy. (Between legs AI) Symbols to r. and l. illegible.

References: McClean Collection 3599-3606.

Head, *Historia Numorum*, p. 232.

These are dated 277-239 B.C.

There is a group of bronze coins, though not many in number, which seem to belong to this period. The fact that they are stamped with the name of the city proves, I believe, that they were minted in Athens. The types are familiar ones on the silver coins of Antigonos Gonatas with the head of Zeus on the obverse and the Athena Polias?² hurling a thunderbolt, right, on the reverse.³ It is possible that the minting of bronze coins for local use was not prohibited by Antigonos, but that silver was not coined because the mines belonged to the Macedonian crown. Nevertheless, it seems reasonable to place this group of bronze coins in the period of Antigonos Gonatas.

Group I

Obverse	Reverse	Specimens
1. Head of Zeus r., bound with taenia; border of dots.	AE Athena Polias? r., hurling thunderbolt and holding shield on l. arm. In field l., spear of wheat; in field r., coiled serpent.	1
Svoronos, Pl. 22, no. 55; B. M. C. (<i>Attica</i>) p. 84, no. 582; Pl. XV, no. 2.		
2. Same.	Same. In field l., Medusa head.	2
Svoronos, Pl. 22, no. 58; not in B. M. C.		
3. Same.	Same. Symbols illegible.	3
Cf. Svoronos, Pl. 22, nos. 53-58.		

¹ Ferguson, *op. cit.* p. 184.

² Pausanias, 1, 26, 7.

³ Newell, E. T., *The Coinages of Demetrius Poliorcetes*, cf. Pl. XVII, no. 27.

The Macedonian hegemony was a period of great depression in Athens and discouraged all enterprise.¹ The city was run down and suffered greatly from dire neglect. Periodic wars had reduced the government to financial exhaustion.² A wealthy Athenian, Eurycleides of Cephisia had alleviated distress in a number of instances, which not only brought him great respect, but prominence in Athenian affairs.³ His influence was paramount in 232 B.C. about two years before the death of Demetrius II, son of Antigonos Gonatas, and in 232/1 B.C., he was a most energetic treasurer of military funds.⁴ The situation in Athens then was almost hopeless; the land lay untilled, for there was no seed grain. Eurycleides came to the rescue and revived agricultural operations.⁵ His public spirit caused the Athenians to turn to him after the death of Demetrius II to decide what course Athens should pursue. It was resolved to secede from Macedon. The commander of the Macedonian garrison agreed to turn over the forts on payment of 150 talents. The money was secured from the friends of Athens and in 229 B.C. Athens was rid of the foreign garrison for the first time in sixty-five years. Now that Athens had regained her liberty, Eurycleides advocated a policy of the strictest neutrality. Athenian independence was recognized by the new regent of Macedon, Antigonos Doson, and even Rome solicited the friendship of the Athenians. The whole ancient world seemed ready to recognize her independence.⁶

No free state could exist without its own money, so that one of the first acts of the new government was to reopen the mints; "rather to require" says Ferguson, "the mints henceforth to coin Attic, not Macedonian pieces."⁷ The new issue of Athenian coins was not merely to meet local needs, but to seek the circulation that had previously been enjoyed by the "owls," and above all to herald the fact that Athens was again a sovereign state.⁸

¹ Ferguson, *op. cit.* p. 237.

² Ferguson, *op. cit.* p. 205.

³ Ferguson, *op. cit.* p. 206.

⁴ Ferguson, *op. cit.* p. 205.

⁵ Ferguson, *Athenian Tribal Cycles in the Hellenistic Age*, pp. 87–88.

In *I.G.*² II 791 (Diomedon Archon 253/2 B.C.) "the specific reason assigned for the solicitation of subscriptions 'for the safety of the state and the protection of the countryside' was to provide the treasurer of the military fund, Eurycleides of Kephisia, with the money needed 'to harvest in security the crops during the remainder of the year.' The time of the launching of the project was the last day of Elaphebolion (April 8th, 252 B.C., Dinsmoor). That an emergency levy had thus to be made in this spring is intelligible and accords well with the demands of historical facts."

"Should, however, l. 4 of *I.G.*² II 791 be restored with a secretary of Lenkonoe and Diomedon be regarded as a second archon of that name (see pp. 18 ff.), the resultant date 232/1 B.C. likewise permits a plausible adjustment between the contents of the decree and the historical situation (*Hell. Ath.*, pp. 203 ff.). It yields an equally satisfactory construction of the *cursus honorum* of Eurykleides . . . and it brings the activity of [Diogen]es Make[don], in subscribing for the defense of Attica, into closer juxtaposition with his extraordinary manifestation of Phil-Athenianism in 229 B.C."

⁶ Ferguson, *Hellenistic Athens*, pp. 206–210.

⁷ Ferguson, *op. cit.* p. 211.

⁸ Ferguson, *op. cit.* p. 212.

The old coin types were definitely abandoned; the new issues were made with a wider and thinner flan which had come into use during the course of the third century. The new devices were inoffensive to modern taste, and they bore marks to fix the responsibility for purity and weight upon mint officials and the various mints.¹ The new money of Athens soon obtained the widest circulation.²

Tradition had been too strong to have them change the Athena head on the obverse. However, the character of the head on the silver series and most of the bronze is very different. Its inspiration was undoubtedly the chryselephantine statue of Athena by Phidias in the Parthenon. The head is adorned with earring, necklace, and a close fitting helmet which is decorated in front with the foreparts of four or more horses abreast. On the side is a flying griffin or Pegasus, and on the back of the bowl is an aplustre. The helmet has the ear guards turned up and the neck guard elongated and finished with an ornamental border. The head is surrounded by a border of small dots. The reverse likewise has innovations, for the owl is represented as standing upon a prostrate Panathenaic amphora; the monograms or magistrates' names and symbols are conspicuous in the field; on the amphora there is often a numeral ranging from A-N; two or more letters often occur beneath the amphora; the whole is surrounded by a wreath of olive.³

This silver series can be divided into four general classes: No. 1 has two monograms and a symbol and can be dated ca. 229–197 B.C.; No. 2 has two abbreviated magistrates' names and a symbol and can be dated ca. 196–187 B.C.; No. 3 bears three magistrates' names and a symbol and can be dated ca. 186–100 B.C.; No. 4 has two magistrates' names and a symbol and can be dated 100–30 B.C.⁴

When the new coinage was adopted in 229 B.C. the monograms of the mint magistrates were affixed to the coins to establish, as I have said above, the responsibility for purity and weight upon the officials. About 196 B.C. the men in charge of affairs seemed to feel that the Roman victories had given their own government added security, so they used the quasi-monarchical privilege of putting their names on the coins of the city;⁵ at first abbreviated and then written in full.

The mint magistrates were members of influential families;⁶ sometimes visiting foreign princes as Antiochus Epiphanes whose name and symbol, the elephant, is found on the coinage of ca. 176/5 B.C.;⁷ and very often closely related members of one and the same family, such as father and son or two brothers. For example, the two brothers Eurycleides and Micion of Cephisia who initiated the new coinage have the names of

¹ Ferguson, *op. cit.* p. 245; Head, *Historia Numorum*, p. 316; Hill, *Handbook of Greek and Roman Coins*, pp. 121 ff.; Sundwall, *Untersuchungen über die attischen Münzen*, p. 110, note 2.

² Ferguson, *op. cit.* p. 217.

³ *British Museum Catalogue (Attica)*. Introduction, pp. XXXIV–XXXV.

⁴ Head, *Historia Numorum*, pp. 380–386.

⁵ Ferguson, *op. cit.* p. 287.

⁶ Head, *op. cit.* p. 379.

⁷ Ferguson, *op. cit.* pp. 302–303.

members of their families recurring in successive generations on the coins of Athens. The adjunct symbol was chosen by the magistrate whose name stood first.

Sundwall's exhaustive study of the subject seems to show that the mint officials were not magistrates in the strict sense of the term; their office was an honorary one which entailed a financial obligation to be met at their own expense.¹ He also supposes a close connection between the Athenian mint and the Areopagus. He believes that the series of names of the third official which occur during the greater part of the second century reveal the fact that a committee of twelve Areopagites was annually appointed and entrusted with the direct responsibility for the purity, etc., of the coins. The members of this committee held office in rotation, so that whenever a fresh issue of coins was required, the signature of the committee-man whose turn it was to assume duty was added beneath that of the ordinary magistrates.²

The third magistrate's name was frequently changed, in some series as often as twelve times during the period in which the other two magistrates held office. Presumably this period was a year, as deduced by the numeral letters on the amphora. No doubt these letters indicated the month of the ordinary or lunar year in which the coins were struck. We should not assume from this, however, that coins were minted with undeviating regularity, year by year or even month by month, in the years when they were issued. The supply was regulated by the demand. There were years of considerable activity, of course, and there are issues which bear all the month numerals A-M (or even N in intercalary years, when an extra month was inserted to adjust the calendar).³ These numerals represent calculations by the lunar month; whereas, the third magistrate's period of office is thought to be reckoned *κατὰ θεόν* or by the solar year.⁴

Every precaution was taken to differentiate the various issues of silver, as is shown by the addition beneath the amphora of various initial letters of uncertain significance. Some scholars believe that these stand for the names of the various *officinae* of the mint.⁵ Svoronos and Sundwall, however, think that these marks designate the various silver mines in Laurium from which metal was procured.⁶ If this interpretation is correct the mint used the output of thirty or forty separate mines during the era of this New Style coinage,⁷ but only about half of this number were the permanent sources of supply, while the other half were mines resorted to only occasionally in periods of stress.⁸

¹ Sundwall, *Untersuchungen über die attischen Münzen*, p. 108; Ferguson, *op. cit.* p. 436.

² Head, *op. cit.* p. 379; Sundwall, *op. cit.* p. 69.

³ Head, *op. cit.* p. 379.

⁴ Head, *op. cit.* p. 380.

⁵ Hill, G. F., *A Handbook of Greek and Roman Coins*, pp. 129 ff.

⁶ Head, *op. cit.* p. 380; Sundwall, *op. cit.* p. 110.

⁷ Ferguson, *op. cit.* p. 377.

⁸ Head, *op. cit.* p. 380.

In the middle of the second century, ca. 166 B.C. Delos was given to Athens by the Romans on the condition that it was to be a free port.¹ The growing needs and immense commerce of Delos had a direct effect upon the coinage of Athens. The demand for metal for minting purposes alone was large and insistent. Thousands of slaves were employed near Sunium to mine and smelt the ore: "The coins were made by hand in a public mint located in the shrine of the hero Stephanephorus." "It was a large business and the mint worked under pressure. Hastily and with little regard to elegance of form, the dies were made and the coins struck; for the Athenian money, being honest in weight and material, had secured a wide circulation."²

In the first quarter of the first century, ca. 92 B.C., the interests of Rome and Pontus were clashing in Asia Minor.³ Athens became engaged in the combat by appealing to Mithradates, king of Pontus, who then seemed to have the upper hand, to help overthrow the oligarchs who were usurping the power in Athens and were monopolizing the offices. Mithradates' aid to Athens only brought Sulla to her gates. This was another period of financial exhaustion and the gold Athenian coins struck with the name of ΒΑΣΙΛΕ ΜΙΘΡΑΔΑΤΗΣ show that the Pontic king helped Athens weather the financial storm. But even with this aid and that of military reinforcements Athens could not withstand Sulla's attacks. After his siege and sack of the city, poverty and demoralization were found on every side in Athens. Money was coined with some regularity after 87 B.C., but not in very large quantities.⁴

None of these silver coins of the New Style was found in the Agora in the first season, but about 120 bronze coins belong to this period.

By means of a chart I have tried to present my study of the chronology of the bronze coins of the New Style classed as Group J (on Plate VII). As a working basis, I have selected all the bronze coin types of this style represented in the *British Museum Catalogue of Attica*, those of the two Attic hoards published by Alfred R. Bellinger in *Numismatic Notes and Monographs* No. 42, those from Barclay Head's *Historia Numorum*, the large collection of Svoronos in *Les Monnaies d'Athènes*, and the specimens from the Agora excavation found in 1931. The majority of these bronze types bear symbols that can be related to the symbols occurring on the silver series of the New Style coinage. By this comparison of bronze and silver coins one can arrive at a tentative chronology for the bronze series, but the inconclusive results obtained show that it is not wise to push these comparisons too far.

Judging from the variations found in the dating of the silver series, as yet there seems to be no absolute certainty of their chronology. The most scientific method of approaching a chronological sequence for the silver series is only now being

¹ Ferguson, *op. cit.* p. 329.

² Ferguson, *op. cit.* p. 377.

³ Ferguson, *op. cit.* p. 439.

⁴ Ferguson, *op. cit.* pp. 439-448; p. 456, note 3; Sundwall, *op. cit.* p. 106.

undertaken by M. Kambanis (*Arethuse*, Vol. V, 1928, pp. 121 ff.) by the comparative method of anvil and punch dies. It is a stupendous task, because of the long series of New Style silver coins, but, I believe, this method alone will produce definite chronological evidence. Since none of these silver coins was found in the first season's excavation, it did not seem necessary to go into this complex problem of chronological sequences on the silver series.

Necessarily then, this study of the bronze coins must be purely tentative, arrived at on the basis of the study of the silver coinage made previously by various numismatists. I have not sought to compare so much the variant datings of the silver coins, but rather the variant datings of the bronze in relation to the silver. To the best of my ability I have tried to make the most reasonable comparisons of bronze and silver and to give the most plausible datings, as nearly as possible on the grounds of style. The results have not been wholly satisfactory, for there is still a distressing variety of dates and difficulties that cannot seem to be reconciled.¹

In the chart (Plate VII) I have given the sequences within the class and the results show that the classes overlap. It does not seem reasonable to think that one class existed alone in a given period, especially in bronze coinage of a late period. That various types existed side by side is more natural and that one group of magistrates preferred one type, another group chose a second. Bellinger is wont to keep these classes mutually exclusive, as far as dating is concerned, and there runs into difficulty.

That Classes I and II begin earlier than Class III seems probable, but that Class III was adopted some time before Classes I and II ceased to be issued is most certain. It is natural to expect this, since Class III is but a replica in bronze of the type of silver coin adopted in 229 B.C. That this should appear early in the second century along with the other types is to be expected.

A point that is brought out in this comparative chart seems to confirm the fact that Classes I, II and III existed side by side for a certain period. Toward the end of the second century we find a confusion of the obverse types. Class I, usually represented with Athena wearing the Corinthian helmet, adopted the Athena Parthenos type of head in Class Ie; Class II, always portraying Athena in the Corinthian helmet, also adopted the Athena Parthenos type in Class IId at about the same time; while Class III, always using the Athena Parthenos type from the silver coins, represented Athena in the Corinthian helmet Class IIIe 2 toward the end of the second century.

Most of the other classes of bronze coins represent types current at more or less one specific time within the period of the New Style coinage. They are not types

¹ M. Kambanis, in a recent article in *B. C. H.*, LVI, 1932, pp. 37-59, has arrived at a completely new arrangement of a certain group of magistrates by means of coördinating the same obverse dies, the rotation of the third magistrate's names, the letters on the amphoras which denote the month, and the groups of initial letters beneath the amphora, which are either the names of the various officinae of the mint or the marks of the silver mines at Laurium. When this task has been completed for all the series of New Style silver coins the chronological sequences may be such that the arrangement of the bronze series will in turn be more satisfactory.

which survived for an extended period and which were changed slightly by each succeeding magistrate to suit his particular taste, such as Classes I, II and III were.

Either in 167 or 166 B.C. the Romans declared Delos a free port by exempting it from taxes,—an expedient resorted to in order to suppress the prosperity of the Rhodian commercial enterprise which annoyed Rome at this time. The temple at Delos was handed over to the Athenians and an Athenian cleruchy was sent composed of governors or “Ἐπιμεληταί” and other magistrates who virtually ruled the island.¹ The foreign inhabitants were ordered to leave, but allowed to remove their property.² This was not the boon to Athens that it might seem on the face of it, for Delos became a great trading centre, a merchant community where speculators and profiteers flourished with no civic duties to fulfil. This, of course, destroyed the commercial prestige of Piraeus and the administration of the island brought a score of unexpected difficulties to the Athenians. Since this was nothing but an artificial prosperity in Delos, it lasted only from 167 or 166 B.C. until the First Mithradatic War in 88 B.C., and during that time the city of Delos was only subsidiary to the commercial prosperity which the harbor afforded.³

The cleruchies ordinarily were accorded the privilege of striking money; however, this right was limited to bronze money and the coins themselves testify that Delos was no exception. Köhler was the first to recognize the series of coins struck AΘE, the style of which differed from the usual Athenian currency and the symbols of which recalled the Delian cults. These he attributed to the Athenian cleruchs in Delos. In 1900 Svoronos confirmed the opinion of Köhler by a study of a group of coins 14 of which had the name of Delos and 91 the name of Athens. Since then the excavations on the island have yielded a great number of these coins and their attribution is no longer doubted.⁴

This group of coins⁵ is characterized by its dual nature, portraying a combination of Athenian and Delian types. One variety has the head of Artemis on the obverse with ^AΘE around the owl and the symbol of the lyre on the reverse.⁶ Another has the head of Athena on the obverse with ^AΘE and the quiver of Artemis on the reverse.⁷ The series which includes the cicade on either obverse⁸ or reverse⁹ recalls immediately the Athenian New Style coins representing the statue of the Delian Apollo¹⁰

¹ *Cambridge Ancient History*, Vol. VIII, pp. 643, 645.

² *C. A. H.*, *op. cit.* p. 291.

³ *C. A. H.*, *op. cit.* pp. 644-650.

⁴ Roussel, Paul, *Delos, Colonie Athénienne*, pp. 47-48.

⁵ Svoronos, *Trésor*, Pls. 106-107.

⁶ Svoronos, *op. cit.* Pl. 106, nos. 1-7.

⁷ Svoronos, *op. cit.* Pl. 106, nos. 27-29.

⁸ Svoronos, *op. cit.* Pl. 107, nos. 50-74.

⁹ Svoronos, *op. cit.* Pl. 107, nos. 28-35.

¹⁰ Svoronos, *op. cit.* Pl. 80, nos. 8-14.

which is invariably accompanied by the symbol of the cicade. A group made on the Attic model is represented by the coins with the head of Artemis on the obverse with A Θ

E and the owl on a postrate Panathenaic amphora on the reverse.¹ Of this latter type there exists a series² which is particularly interesting and confirmatory for this attribution to the Athenian cleruchs in Delos. Beneath the head of Artemis on the obverse are the letters TP1A which recall the name of Triarius, the legate of Lucullus, who repaired the damages of the ravaging of the island by the Pontic troops and the pirates led by Athenodorus. Sometime after 69 B.C. Triarius cleaned up the city, reconstructed the ruins of the sanctuary of Apollo, and fortified the city by a wall, a great part of the course of which can now be traced in Delos. Four epigraphical documents have been found in the excavations of the island which relate to the legate and his work.³ No doubt, these coins bearing his name were struck in commemoration of his services. The striking of these coins may have continued until near the end of the century.⁴

I have not attempted a chronological sequence of these coins of the Athenian cleruchs in Delos, but I am merely listing the various types found in the Agora in 1931.

Group K

<i>Obverse</i>	<i>Reverse</i>	<i>Specimens in Agora</i>
1. Head of Artemis r. Svoronos, Pl. 106, nos. 48–51.	AΘE Kerchnos within wreath of wheat.	1
2. Head of Athena r., wearing Corinthian helmet. Not in Svoronos; B. M. C. (<i>Attica</i>) Pl. XV, no. 14.	(A ΘE) Kerchnos within wreath of wheat.	1
3. Head of Artemis r. Svoronos, Pl. 107, nos. 43–45.	A E Cicade. Θ	
4. Head of Artemis r. Svoronos, Pl. 107, nos. 36–41.	A Θ Upright Amphora. E	3
5. Cicade. Svoronos, Pl. 107, nos. 50–54.	A Owl r., on thunderbolt. Θ E	1
6. Cicade. Svoronos, Pl. 107, nos. 55–69.	A Θ Upright Amphora. E	6

¹ Svoronos, *op. cit.* Pl. 106, nos. 52–65.

² Svoronos, *op. cit.* Pl. 106, nos. 66–71.

³ Roussel, *Delos, Colonie Athénienne*, p. 331.

⁴ Roussel, *op. cit.* p. 48, note 1, and p. 334, note 2.

During this period Athens also had other cleruchies than Delos, but the only other one that is represented by coins in the Agora in 1931 is Peparethos, an island lying off the coast of Thessaly. As the independent coinage of the island shows, Dionysos was the chief divinity of the Peparethians. This is, no doubt, the reason why Svoronos¹ attributes the series of coins with AΘE and the heads of the young and bearded Dionysos to this cleruchy. There were only seven coins found in the first season's excavations that can be placed here, but they represent four different types.

Group L

<i>Obverse</i>	<i>Reverse</i>	<i>Specimens in Agora</i>
1. Head of young Dionysos r., bound with ivy. Border of dots. Svoronos, Pl. 25, nos. 29-31.	A ΘE Athena advancing r., armed with helmet, spear, and aegis.	1
2. Head of young Dionysos r., bound with ivy. Svoronos, Pl. 25, nos. 33-34.	A Θ Kantharos. E	2
3. Head of Zeus r., bound with taenia. Border of dots. Svoronos, Pl. 25, nos. 36-42.	A Θ Head of Dionysos r., bearded, E wearing wreath.	3
4. Head of Dionysos bearded r. Svoronos, Pl. 25, nos. 43-50.	A Θ Head of Athena r., wearing E crested Corinthian helmet.	1

Another series of coins bearing the letters AΘE is the money of Eleusis which is similar in type to that struck ΕΛΕΥΣΙ. The explanation of these coins and their chronological sequences have been the subjects of much discussion among numismatists. Several of them have worked on the principle that this Eleusinian money was the sign of autonomy of this religious centre and of its accidental independence of Athens from time to time. They have searched the history for circumstances which might have produced this independence.² In B. M. C. (*Attica*)³ Mr. Barclay Head has placed all this Eleusinian money between 350-300 B.C. But in his *Historia Numorum* he has shifted his dating to 339-322 B.C., perhaps on consideration of style and comparison with Athenian money. He believes that at this time Athens conceded to this religious site the right of coining money, a privilege that was certainly of short duration.⁴

M. Cavaignac⁵ believes that the monies of Eleusis are the various issues struck for the festivals in the periods when Eleusis, independent of Athens, had need of

¹ Svoronos, *op. cit.* Pl. 25, nos. 29-50.

² Babelon, *Traité III². Description Historique*, p. 138.

³ B. M. C. (*Attica*), Introduction lx, § 5.

⁴ Head, Barclay, *Historia Numorum*, p. 391.

Cavaignac, *Les Monnaies d'Eleusis*, *Revue Numismatique*, 1908, pp. 311 ff.

small denominations for local commerce. He distributes these issues into several chronological periods, the first being placed 403–400 B.C. when Eleusis was separated from Athens during the failure at the end of the Peloponnesian War. The second series he dates ca. 318 B.C., during the struggle of Polysperchon against Cassander and of Cassander against Demetrios Poliorcetes, when he thinks Eleusis detached herself from Athens and struck money. The third series he would assign to the short period from 287–285/4 B.C. when Demetrios having lost Athens seized Eleusis.¹ Because they are manifestly a later style than the other two, he thinks it is necessary to place them here. The fourth series he compares with certain Athenian bronze pieces of the second century and the fifth series he places still later.²

Mr. Ferguson states that the only "possible eras of Eleusinian independence are: of course, in 403–401/0 B.C.; 318/7 B.C.; 304 B.C. while Cassander was besieging Athens; 296–294 B.C. from the time Poliorcetes captured Eleusis³ until the fall of Athens, and perhaps until the capture of Eleusis by Demochares in 289/8 B.C. Eleusis was Athenian from 289/8 B.C. onward, hence this period is excluded, but in 265–261 B.C. during the Chremonidean War Eleusis was certainly not in the possession of the Athenians."

Ferguson believes it possible that two issues belong to 296 or 294–289/8 B.C. and 265–261 B.C. He says that it is not possible for an issue to belong to 318/7 B.C. "if the Archippus of *I.G.* ii, 5.574e⁴ was the Archon of this year, and not of 321/0 B.C., which is also possible; besides there is no record of Eleusis being separated from Athens at this time. Nor have we any certain evidence of a separation in 304 B.C., since Plutarch⁵ mentions only Panaeton and Phyle as being in possession of Cassander during the siege. Still there is no unlikelihood that he held Eleusis also. After 261 B.C. I know of no time when Eleusis was independent," says Mr. Ferguson.⁶

M. Svoronos would attribute the money in the name of Eleusis to two different periods in Athenian history, when some of the people of Athens sought refuge in Eleusis. They were full-fledged citizens and free from Athenian control and interference. The first time was after the fall of the Thirty Tyrants, when the Athenian agreement with King Pausanias accorded the privilege to those in the city, who were afraid because of their political affiliations, to move to Eleusis without loss of property.⁷ The second time was very much later, during the epoch of the Chremonidean War, when again Athenian citizens occupied Eleusis.⁸

In opposition to these theories, M. Babelon contends that the money which bears the name of Eleusis was struck at Athens itself at the celebration by the Athenians

¹ Babelon, *Traité III*². *Description Historique*, p. 139.

² Babelon, *op. cit.* p. 140.

³ Plutarch, *Demetrios*, 33.

⁴ Ditt. Syll.², 647.

⁵ Plutarch, *Demetrios*, 23.

⁶ Ferguson, *Hellenistic Athens*, p. 145, note 4.

⁷ C. A. H., Vol. V, p. 372.

⁸ Babelon, *Traité III*², p. 140.

of the Greater Eleusinia. He feels that the money struck with AΘE, having the same type as the Eleusinian money and bearing the same symbols in the field of the reverse, is an argument against the Eleusinian money being produced in the periods when the deme of Eleusis had political autonomy and was independent of Athens. The exclusive use of bronze, the few small denominations, and the lack of variety of types and symbols, all go to prove that the Eleusinian coinage was struck under the authority of Athens.¹

But the abundance of this coinage from Eleusis, the variety of striking, and the very noticeable differences of style between the various groups lead one to the conclusion that this coinage was struck more or less intermittently over a long period of time. Is it not then the religious coinage struck at the periodic celebration of the Greater Eleusinia? This money was only poor bronze, since it was destined to be thrown at the people during the grand processions which wound along the Sacred Way.²

Babelon believes that the style of the earliest series warrants a date not earlier than the middle of the fourth century or, perhaps, even as late as the period of Alexander, as Barclay Head suggests. He thinks that the latest series belongs to a period well advanced in the third century or even later.³

It is probable that the bronzes of Eleusis bearing the name of Athens were struck at the times when the celebration of the Greater Eleusinia was held in Athens, perhaps, in moments of crises when the access to Eleusis was found to be closed to the solemn processions which ordinarily started from Athens and moved toward Eleusis.⁴

Though only a few of these coins were found in the 1931 excavations, the succeeding campaigns have added considerably more of them. It is to be expected that large numbers of them will be found in the Agora, for it is here that the procession assembled before starting out for Eleusis.

Group M

<i>Obverse</i>	<i>Reverse</i>	<i>Specimens in Agora</i>
1. Triptolemus seated l., in winged chariot drawn by 2 serpents, holds wheat in r. hand. Svoronos, Pl. 103, cf. no. 10.	EAΕΥ (above) Pig standing on bakchos, all in wreath of wheat. Symbol in exergue kerchnos?	* 1
2. Same as 1., but Triptolemus seated r. Svoronos, Pl. 103, no. 15.	EAΕΥΣΙ Same as 1., but no symbol in exergue.	1

¹ Babelon, *op. cit.* p. 140.

² Babelon, *op. cit.* p. 141.

³ Babelon, *op. cit.* pp. 141-142.

⁴ Babelon, *op. cit.* p. 142.

<i>Obverse</i>	<i>Reverse</i>	<i>Specimens in Agora</i>
3. Same as 1.	ΕΑΕΥΣΙ in exergue below the Pig on bakchos, all in wheat wreath.	5
Svoronos, Pl. 103, cf. nos. 17–21.		
4. Head of Demeter to r.	Α Θ Ε in exergue below the Pig on bakchos.	1
Svoronos does not give the type with letters below, but cf. Pl. 103, nos. 57–64.		

It is hardly possible to estimate the extent of the trade and foreign relations of Athens through the Greek period from the foreign coins found in one short season's excavation. Every campaign of excavations adds numerous and different types from all over the Greek world. No doubt, Athens held the same position in the Greek period that our great modern metropolises do today. It was the centre for merchants and traders, travellers and scholars who came from abroad. They brought with them their local monies which were accepted in Athens only according to weight. We are assured that all kinds and varieties of people visited the Agora, where we find a strange assortment of money throughout all ages. I am listing the Greek coins from these various foreign sites merely to give a vague idea of the unlimited variety of coinages that we can expect as the excavations progress.

1. *Chalcis, 480–445 B.C. AE (1 coin).*

Ob. Eagle with spread wings flying r.

Re. Incuse square (much rubbed).

Reference: B. M. C. (*Central Greece*) cf. p. 109, no. 36, Pl. XX, no. 7. (If this is Chalcis it is not otherwise known in AE, this reference is to silver.)

This, no doubt, belongs to the new currency issued after the Persian War when the fabric became thinner and flatter. At this time the cities of Euboea were subject allies of Athens. This late archaic money does not extend beyond the time of the revolt of Euboea from Athens in 445 B.C. and its reconquest by Pericles in the same year.¹

2. *Coreyra.*

a. *450–400 B.C. AE (2 coins).*

Ob. Head of young Herakles r., in lion's skin.

Re. ΚΘ Bunch of grapes with leaves.

Reference: B. M. C. (*Thessaly*), p. 121, no. 101, Pl. XXII, no. 2.

b. *229–48 B.C. AE (1 coin).*

Ob. Head of young Herakles r., in lion's skin.

Re. ΚΟΡΚΥ Above forepart of gally r.

ΠΑΙΩΝ (Name or monogram of prytanis below illegible).

References: B. M. C. (*Thessaly*), p. 145, cf. nos. 482–484; McClean, Pl. 190, no. 29; Head, *Hist. Num.*, p. 328, dates this coin 229–48 B.C.

Between 450–400 B.C. Athens and Coreyra had an alliance; the coins of *a* may be representative of this. However, the coins similar to *b* were issued under the Roman

¹ B. M. C. (*Central Greece*), Introduction, pp. liv–lv.

Republic when Corcyra was free and allowed to issue money. There are coins similar to *b* that have ΝΙΚΑ on them which may refer to a victory won in galley racing by the Corcyreans.¹

3. *Euboea, 411–387 B.C. AE (1 coin).*

Ob. Bull standing r., above wreath?

Re. Bunch of grapes; to r. ΕΥΒ; in field l., star?

Reference: B. M. C. (*Central Greece*), p. 97, cf. no. 26.

This coin belongs in the period after the second revolt from Athens, when Euboea thereafter was independent of Athens. Coins reading ΕΥΒ may be attributed to Eretria, for there are no coins from that city at that time and the other cities of Euboea had their own names on the coins.²

4. *Rhodes.*

a. *400–333 B.C. R Didrachm. Weight 6.30 gr. (1 coin).*

Ob. Head of Helios, $\frac{3}{4}$ face toward r., hair loose.

Re. ΡΟΔΙΟΝ Rose with bud in field r., below ΕΥ, symbol l., grapes. (Incuse not apparent.)

Reference: B. M. C. (*Caria and Islands*), p. 233, no. 34, Pl. XXXVI, no. 9.

b. *333–304 B.C. AE (1 coin).*

Ob. Head of nymph Rhodes r., wearing stephane, pendent earring; hair rolled. (The wife or the daughter of Helios, according to varying accounts.)

Re. (ΡΟ to l. and r.). Rose on stem with bud to r.

References: McClean Coll. III, no. 8578, Pl. 299, no. 18, also cf. no. 32; B. M. C. (*Caria*), p. 238, nos. 82 seq. Pl. XXXVII.

After 408 B.C. when the city of Rhodes was founded, the new coinage that was introduced was, no doubt, inspired by the unrivalled masterpieces of Kimon at Syracuse, who used the full face or three-quarter heads which were a novelty at this period. The Rhodian die-engraver did not follow him slavishly, but asserted his individuality. The result is a worthy and characteristic rendering of the Sun God in his noon-day glory with rounded face and ample locks of hair blown back, suggesting his rapid course. The crown of rays which artists of the later age preferred is, on these earlier coins, merely hinted by a skillful adaptation of the locks of hair. The unradiate heads of coins similar to *a* come before the age of Alexander except the didrachms with magistrates' names at full length.³

5. *Phocis, ca. 371–357 B.C. AE (1 coin).*

Ob. Head of Athena facing slightly r., in three-crested helmet.

Re. Olive wreath (3 leaves visible), Φ in centre; perhaps should be Φ(Ω).

Reference: B. M. C. (*Central Greece*), p. 70, cf. no. 77.

In this period of Theban supremacy in Central Greece, bronze coins make their first appearance. From ca. 371–357 B.C. the Phocians were unwilling allies of Thebes during the Theban supremacy. The Phocian silver may have been driven out of circulation

¹ B. M. C. (*Thessaly*), Introduction, pp. xlix–l; Head, *Historia Numorum*, p. 328.

² B. M. C. (*Central Greece*), Introduction, p. lix.

³ B. M. C. (*Caria and the Islands*), Introduction, pp. cii ciii, and p. cv.

by Locrian and Boeotian currency. This type with Athena facing may have been imitated from coins of Syracuse (tetradrachms),¹ as are also Locrian coins of this period. On the reverse of these coins the later form of Φ occurs for the first time.²

6. *Arcadia, Arcadian League struck at Megalopolis, ca. 363–330 B.C. AE (1 coin).*

Ob. Head of young Pan r. (with goat's horns).

Re. Σ Syrinx.

Reference: B. M. C. (*Pelop.*), p. 174, nos. 62 ff.

Presumably, this is the festival or federal coinage struck for the Arcadian games which were held on Mt. Lycaeus, the Arcadian Olympus. The types, no doubt, are taken from the cult of Pan.³

7. *Salamis, ca. 350–318 B.C. AE (1 coin).*

Ob. Woman's head r. (Salamis).

Re. ($\Sigma\Lambda\Lambda\Lambda$) Shield of Ajax.

Reference: B. M. C. (*Attica*), p. 116, nos. 1–6.

Salamis fell into the hands of Macedon in 318 B.C. Belonging to the dominion of Athens, it appears to have had the right to coin money from 339–318 B.C.⁴ There is a temple to Ajax on the island (Paus. 1, 35, 3). The festivals called *Αἰάντεια* were celebrated in honor of Ajax and these coins were doubtless issued on these occasions.⁵

8. *Locri Opuntii, ca. 338–300 B.C. AE (2 coins).*

Ob. Head of Athena r., wearing Corinthian helmet.

Re. $\Lambda\Theta\text{ΚΡ}\Omega\text{Ν}$ Bunch of grapes.

Reference: B. M. C. (*Central Greece*), p. 7, nos. 57–60, cf. Pl. II, no. 8.

After the battle of Chaeroneia in 338 B.C., Greece was reorganized under the hegemony of Macedon. It was said at the congress which assembled at Corinth that the separate autonomy of each individual city would be reaffirmed. But in Boeotia and Locris this is not borne out by the coins, for there are no longer names of separate cities, but the words ΒΟΙΩΤΩΝ and $\Lambda\Theta\text{ΚΡ}\Omega\text{Ν}$.⁶

9. *Corinth.*

a. *400–300 B.C. AE (1 coin).*

Ob. Pegasus with pointed wing l.

Re. Trident upwards; in field r., amphora?

Reference: B. M. C. (*Corinth*), p. 56, cf. no. 462.

b. *300–243 B.C. (ca.) AE (1 coin).*

Ob. Head of Athena r., wearing Corinthian helmet.

Re. Pegasus, forepart with pointed wing to r. Below φ .

Reference: B. M. C. (*Corinth*), cf. p. 57, no. 476, Pl. XIV, no. 9.

¹ Head, B., *Coins of the Ancients*, Pl. XXVI, fig. 31.

² B. M. C. (*Central Greece*), Introduction, p. xxvi.

³ Head, B., *Historia Numorum*, p. 444.

⁴ Köhler, *Ath. Mitt.* IV, p. 250.

⁵ Head, B., *Historia Numorum*, p. 392.

⁶ B. M. C. (*Central Greece*), Introduction, p. xviii.

10. *Histiæa*, ca. 313–265 B.C. AE (1 coin).
 Ob. Woman's head r., wearing earring, necklace, and vine wreath; hair in sphendone.
 Re. ΙΕΤΙ Head and neck of bull, $\frac{3}{4}$ face r., with fillet (obscure), to l., bunch of grapes.
Reference: B. M. C. (*Central Greece*), p. 128, nos. 29–33, Pl. XXIV, no. 8.
11. *Megara*, 307–243 B.C. AE
 a. (2 coins.)
 Ob. Prow l, on it stands a tripod, above trident l.
 Re. ΜΕΓ Two dolphins swimming r., in circle, border of dots.
Reference: B. M. C. (*Attica*), p. 120, nos. 22–25, Pl. XXI, nos. 10 or 11.
 b. (2 coins.)
 Ob. (ΜΕΓΑ) Prow l.
 Re. Tripod between two dolphins upwards; border of dots.
Reference: B. M. C. (*Attica*), p. 120, no. 30, Pl. XXI, no. 12.
 c. (1 coin.)
 Ob. Prow l.
 Re. (Obliterated.)
Reference: B. M. C. (*Attica*), Pl. XXI, nos. 12 or 13.
12. *Epidaurus*, 323–240 B.C. AE (1 coin).
 Ob. Head of Asklepios r., laureate.
 Re. Ε In laurel wreath.
Reference: B. M. C. (*Pelop.*), p. 157, nos. 16–17, cf. Pl. XXIX, no. 17 (without Γ).
13. *Macedonia, Time of Alexander to 323 B.C. Α Didrachma. Weight 4.50 gr. (1 coin).*
 Ob. Head of Herakles in lion's skin r.
 Re. Zeus seated l, $\frac{1}{2}$ nude, holding eagle in r. hand and sceptre in l. (inscriptions illegible).
Reference: McClean Coll. no. 3483, Pl. 131, no. 1.
14. *Aegina*, 320–130 B.C. AE (1 coin).
 Ob. ΑΙΓΙ (inscription very vague). Prow r.
 Re. ΑΙΓΙ Rams head r.
References: B. M. C. (*Attica*), no. 228; Millbank, p. 54, c, Pl. IV, no. 7 (ΑΙΓΑ).
15. *Achaean League*, ca. 280 B.C. AE (1 coin).
 Ob. Head of Zeus r., laureate.
 Re. Χ within laurel wreath.
Reference: B. M. C. (*Pelop.*), p. 1, no. 2.
- This coin dates after the reorganization of the Achaean League when the federal mints issued a uniform coinage.¹
16. *Antigonos Gonatas*, 277–239 B.C. AE (2 coins).
 (Given within text of paper p. 254.)
17. *Aegae?*, *Aeolis*, *Asia Minor*. 3rd century. AE (1 coin).
 Ob. Head of Athena r., wearing crested Athenian helmet ornamented with pegasus or griffin.
 Re. ΑΙΓΑΕΟΝ (uncertain). Goat's head (obliterated).
Reference: B. M. C. (*Troas, Aeolis and Lesbos*), cf. R, p. 95, no. 1, Pl. XVIII, no. 1.

¹ Head, B., *Historia Numorum*, p. 416.

18. *Epirus Republic, 238–168 B.C.* AE (1 coin).

Ob. Head of Dione wearing laureate stephanos and veil. AT behind head.

Re. (ΑΠ)ΕΙ Tripod-lebes, all in laurel wreath.

ΡΩΤΑΝ

References: B. M. C. (*Thessaly*), Pl. XVII, no. 12, p. 91, no. 53; McClean Coll., Pl. 189, no. 13.19. *Dyrrachium, 229–100 B.C.* AE (1 coin).

Ob. Head of Dodonaean Zeus r., crowned with oak.

Re. ΦΙΑΩ Tripod-lebes, below ΔΥΡ, all in oak wreath.

ΙΑ

Reference: B. M. C. (*Thessaly*), p. 76, nos. 167–168; cf. Pl. XIV, no. 4, same type with different magistrate.

From 229–100 B.C. Dyrrachium was under Roman protection and still retained a considerable measure of autonomy. The names of the magistrates on the coins refer to mint officials who superintended the minting of the money or tested it when it was minted.¹

20. *Magnetes, ca. 197–146 B.C.* AE (1 coin).

Ob. Head of Zeus l., hair bound with a taenia.

Re. ΜΑΓΝΗ Above and below the prow of a ship r.

ΤΩΝ

References: McClean Coll., nos. 4641–4642; B. M. C. (*Thessaly*), p. 34, nos. 3–12, 13 (all with head r.).

In 196 B.C. Flaminius proclaimed the freedom of Magnetes and at once the city began to issue federal coinage.²

21. *Aenianes, Thessaly, 168–146 B.C.* AE (1 coin).

Ob. Head of Zeus r., laureate.

Re. ΑΙΝΙΑΝ(ΩΝ) around from r.; slinger (Pheonius) discharging sling r., body full face, two javelins behind him on l.

References: Exact type not in B. M. C. (*Thessaly*) or McClean Coll.; cf. B. M. C. (*Thessaly*), Pl. II, no. 5, p. 12; McClean Coll. II, nos. 4553–4554, Pl. 171, no. 10. (Zeus head l., in these types.)

Aenianes did not begin to issue money until it obtained freedom from the Aetolian League which dissolved in 168 or 167 B.C. presumably.³

22. *Thessaly, Time of Hadrian.* AE (1 coin).

Ob. Bust of Achilles r., in close fitting crested helmet (ΑΧΙΑ); to r. ΑΕΥC.

Re. (ΘΕ)CCA ΩΝ Free horse r., trotting.

Reference: B. M. C. (*Thessaly*), p. 6, no. 69.

Some of these foreign cities belonged to the dominion of Athens, others were subject allies, and still others had merely commercial alliances. But whether there was a direct connection between Athens and these foreign cities or not, Athens was always a haven for foreigners. Among the metic and slave populations there were, no doubt, more foreigners than Athenians. There was probably no city in the ancient

¹ B. M. C. (*Thessaly*), Introduction, p. xi.² B. M. C. (*Thessaly*), Introduction, p. xxxi.³ B. M. C. (*Thessaly*), Introduction, pp. xxxi–xxxii.

Greek world that would have had as much foreign coinage filtering in as Athens. Though the numbers of foreign coins are not large for this first season's excavation, nevertheless, every campaign adds greater quantities and more varieties.

The coinage of Athens under Imperial Rome is a subject which has not yet been thoroughly worked out in any way. From the thirty series of silver money of the New Style known between 86 B.C. to the beginning of the Empire, there are only three¹ that can be attributed to the period of Augustus. Also, two of these contain only drachms and not tetradrachms, as in the past.²

There is a series of Roman money which has been said by some³ to have been struck at Athens on the occasion of the visit of Augustus in 19 B.C. If the Emperor even stopped at Athens in this year, it must have been only for a little time and it is mentioned in connection with his meeting with Vergil.⁴ Mattingly and Sydenham⁵ reject these conclusions and put the money, bearing the reverse IOVI OAY(M) with the temple of Zeus Olympius, among the coins which were struck in an uncertain mint in the orient, and place them between 19 and 15 B.C.⁶

In the Numismatic Museum in Athens there are only two pieces of this series, two denarii, one with the capricorn and the other with the temple of Zeus Olympius. There is nothing about them which would show that they are superior in style or even different from the ordinary Roman money of the time. The grounds for attributing these to Athens and for identifying the building with the temple of Zeus are very hypothetical.⁷

From the evidence of the coins struck with the name of Athens (ΑΘΗ or ΑΘΗΝΑΙΩΝ) it is necessary to conclude that the right of striking money was denied the Athenians about the beginning of the Empire. Augustus did not seem content to prohibit the Athenians from selling their rights of citizenship in Athens, but went further in withdrawing their privileges of a free city by refusing them the right to strike money. But it is possible that this punishment was inflicted upon them only at the time of a revolt which is placed at the end of the reign of Augustus.⁸

After the time of Augustus, the Athenians struck only bronze money and there is no evidence that will enable us to place this with any certitude before the time of Hadrian, 117 to 138 A.D. However, when they were again granted the privilege of coining money, they were accorded an exceptional favor; their money did not carry the head of the Emperor,⁹ as most provincial coinage did during the Imperial times,

¹ Demochares-Pammenes, Dionysios-Demostrates, and Architimos-Pammenes.

² Graindor, Paul, *Athènes sous Auguste*, pp. 37-38.

³ Gabrici, *Studi e materiali di archæologia e numismatica* II, 1902, pp. 163 ff.

⁴ Graindor, *op. cit.* p. 37.

⁵ Mattingly & Sydenham, *Roman Imperial Coinage* I, 1923, p. 64, no. 56.

⁶ Graindor, *op. cit.* p. 37, note 1.

⁷ Graindor, *op. cit.* p. 37.

⁸ Graindor, *op. cit.* p. 38.

⁹ Graindor, *Athènes de Tibère à Trajan*, p. 132, note 3.

but still represented the head of Athena, the patron Goddess of Athens, which had sealed the coinage of Athens almost since its first beginning.

If one can not assign the beginnings of this Athenian Imperial coinage to a date before the second century of our era, what was the monetary situation in Athens for over a century and a quarter? And one may rightly ask, for here is a very moot problem. It is a simple solution to say that the city used Roman Imperial coinage, but I wish to point out this problem as it confronts us in the excavation of the Agora. Every year there is found an abundance of New Style bronze coinage and large numbers of Athenian Imperial coins, but in the interval between the two during the first century, when one would expect the use of Roman Imperial coinage, we find only an occasional coin here and there. In fact this is the only period which does not have a fair representation of coins. Indeed, a city the size of Athens had need of considerable coinage over a period of a century and a quarter. Is it to be supposed that the New Style coinage was sufficient to continue in circulation throughout this long period, or is it possible to place some of the issues of Athenian Imperial money in the first century A.D.? At present the evidence is not sufficient to assure one that this is the solution for the lack of coinage in the first century of our era.

Since the Athenian coinage of the Roman period did not carry the head of the Emperor, as in most provincial cities, it makes the problem of classifying it chronologically most difficult. To arrange this abundance of coinage according to die-sequences would furnish a chronological ordering but it would not elucidate very much the specific dating of the series.

Svoronos has arranged this long series according to the subjects on the reverse, but this gives no clue to dating whatsoever. From a hoard of these Imperial Athenian coins found at Eleusis, he drew the conclusion that this money was struck first under Hadrian and then not again until the time of Gordianus III.¹ But actually, the styles of the heads of Athena on the coins themselves show that there were many striking with a long deterioration of style and diminution of sizes. No doubt, they began under Hadrian, perhaps ceasing for a time under Severus, but soon resumed again and extended through the time of Gordianus to the reign of Gallienus who was a friend of the Athenians.²

If one assumes, then, that the oldest pieces of this money belonged to the first half of the second century, it is necessary to place the series of coins with the large flans, which it will be noticed have been most rubbed, as the earliest of this long series.³ An examination of the types of the heads of Athena in this group shows that there are two distinct variations of style. One group wears the Corinthian helmet and the other the Attic, which will be discussed later. The heads with the Corinthian helmets show

¹ *Ath. Mitt.*, Band 56, 1931. Pick, Behrendt, *Die "Promachos" des Pheidias und die Kerameikos-Lampen*, p. 60.

² *Ath. Mitt.*, *loc. cit.* pp. 60-61.

³ *Ath. Mitt.*, *loc. cit.* p. 61.

specific characteristics: first, they recall the form and style of the helmet of the New Style coinage; secondly the bowl of the helmet is large and slightly ovoid with a sweep of the narrow horse hair crest from the top of the bowl to the neck line. They are beautiful heads with delicate features. The hair is loosely waved beneath the helmet and hangs down the back in loose locks.¹ A variation of this group wearing the Corinthian helmet is represented by the bust of Athena, a charming, youthful Goddess with shoulders draped. The size of the head has diminished and the helmet is set more upright upon it. The bowl of the helmet is smaller and rounder and is crowned with a shorter and narrower crest worn high on the bowl. The hair is loosely waved beneath the helmet and is drawn back in a loose roll in the neck. Often we find that this type is surrounded by an olive wreath.²

Judging from the larger size of the flan, the darker tint in the metal, the rubbed condition of the coins, and the superior technique of the type, we must place the group of coins with the bust of Athena wearing the crested Attic helmet in this general period. In spite of the fact that most of the coins of this group are so rubbed that the details are uncertain, one can see that it is a lovely bust and of quite superior technique. M. Pick is inclined to suppose, in a study of these coins in comparison with lamps found in the Cerameicus, that when this Athenian Imperial coinage was initiated there was a competition to determine the style of the coin type.³ One type, that with the Corinthian helmet, drew its inspiration from the statue of Athena Promachos, while the other with the Attic helmet copied the Athena Parthenos of Pheidias. The representation of Athena with the Corinthian helmet appears to have found the greatest approbation, as it continues unremittingly throughout the period of Athenian Imperial coinage. While the type with the Attic helmet soon ceased and did not reappear until a somewhat later period.⁴ Even in the small fractional issues there seems to have been this struggle to determine the types and here, too, the Corinthian helmet seems to have prevailed.

The coins of this period soon changed to a smaller module of somewhat heavier fabric made of a lighter colored metal. In a general way it is possible to follow the changes of style which occurred throughout the period. In the second century the hair begins by being loose and soft over the forehead and in the back; then the back hair is turned into a soft roll which gradually becomes more twisted; until in the third century there is a hard roll with even the hair over the forehead changed from loose locks to a hard twist.⁵ The crest of the helmet, too, is altered. It began with a simple, narrow horse hair crest formed by parallel lines, which sweep over the bowl

¹ Svoronos, *Trésor*, cf. Pl. 82, nos. 1 and 29; Pl. 83, nos. 15 and 29; Pl. 86, nos. 2-3.

² Svoronos, *op. cit.*, cf. Pl. 82, no. 4; Pl. 83, nos. 31-32; Pl. 85, nos. 10, 12; Pl. 86, no. 1; Pl. 87, no. 15; Pl. 88, nos. 55-56.

³ *Ath. Mitt.*, *loc. cit.* p. 61.

⁴ *Ath. Mitt.*, *loc. cit.* p. 61.

⁵ *Ath. Mitt.*, *loc. cit.* p. 63.

of the helmet ending in simple strands in the nape of the neck. Later this crest broadens, becoming more elaborate with a fan-like flare from a central point on the bowl of the helmet, and often ends in a more sophisticated double curve in the back of the neck.

In the third century it appears that the helmets change in type and in elaboration. The use of the Attic helmet is again found with a variety of shapes of visors, with combinations of types with elaborately decorated bowls, and with the more frequent use of the neck guard. We also find high double crests on Attic helmets, along with broad sweeping single crests. It seems to be at this time that the Athena head which is turned to the left comes into use.

For the sake of convenience it has seemed best to present the specimens of this coinage found in the Agora in 1931 according to the subjects of the reverse. However, the Athena heads on the obverse of the coins found in the Agora can first be divided into 8 classes.

- I a. Head of Athena r., wearing crested Corinthian helmet, narrow horsehair crest with long sweep over bowl; hair in loose locks over forehead and in back of neck. Youthful Goddess—superior technique.
- I b. Bust of Athena r., same as I a., but has soft drapery at neck. Superior technique.
- II a. Bust of Athena r., wearing double crested Attic helmet, close fitting, hair loose in back. Details of helmet indistinct, but seems to be an owl on the neck guard, wears necklace and aegis. Superior technique. This head gives one a nobler and in some respects a truer representation of the Parthenon statue than the head on the New Style silver coinage.
- II b. Head of Athena r., wearing crested Attic helmet, close fitting with visor and olive leaves, neck guard; hair shows beneath helmet, wears necklace. Superior technique. Occurs only on fractional issue.
- III a. Head of Athena l., wearing crested Corinthian helmet, narrow sweeping crest. Occurs only on fractional issue.
- III b. Bust of Athena r., wearing crested Corinthian helmet, narrow crest sweeps over bowl and ends in simple strands at neck; hair in loose locks over forehead and soft roll at neck; shoulders draped.
- IV a. Head of Athena r., wearing crested Corinthian helmet, broad fan-like crest spreads from central point on bowl; hair loose over brow and in back.
- IV b. Bust of Athena r., same as IV a., but shoulders draped.
- V a. Head of Athena r., wearing crested Corinthian helmet, broad crest spreads fan-like from central point on bowl; hair in soft locks on brow and loose roll in back.
- V b. Bust of Athena r., same as V a., with drapery on shoulders.
- VI. Bust of Athena r., wearing crested Corinthian helmet, broad crest spreads fan-like from central point on bowl; hair in soft roll over brow and in back; shoulders draped.
- VII a. Head of Athena r., same as VI., but hair in hard twisted roll over brow and in back; no drapery.
- VII b. Bust of Athena l., same as VII a.
- VIII. Bust of Athena r., wearing crested Attic helmet with visor, ear-guards, and long neck guard; shoulders draped.

Classes I a and I b and II a and II b are coins with large modules made of dark metal. Their rubbed condition and superior technique designate them as the earliest

groups of these Athenian Imperial coins. The other classes are made on a smaller flan and of lighter metal. Classes IIIa and IIIb are transitional types; while classes IVa and IVb and Va and Vb seem to belong to the last half of the second century. Class VI is transitional to the third century types of classes VIIa and VIIb and VIII.

The representations on the reverse of these Athenian Imperial coins cover a wide range of artistic, monumental, mythological, and symbolical subjects. This study of them has been divided into those categories.

A. Copies of statues represented on Athenian Imperial coins found in the Agora.

1. *Athena Parthenos of Pheidias.*

Obverse classes	Reverse	References	Number	Remarks ¹
I a. and b. II a. V a. VII b.	ΑΘΗΝΑΙΩΝ Athena Parthenos facing l., holding Nike; armed with helmet, spear, and shield.	Svoronos, Pl. 82, nos 1-4, 13, 29, 35, 41; Pl. 83, nos. 10, 11, 15.	7	Pausanias 1, 24, 7. This is a copy of the Chryselephantine statue of Pheidias in the Parthenon.

2. *Athena Archegetis.*

VII a.	ΑΘΗΝΑΙΩΝ Athena standing l., wears helmet and long chiton; owl in r. hand extended.	Svoronos, Pl. 83, no. 39.	2	May be Athena Archegetis on Acropolis or Athena Paeonia near Cerameicus. Pausanias 1, 2, 5.
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3. *Athena from the Pediment of the Parthenon.*

I a. and b.	ΑΘΗΝΑΙΩΝ Athena advancing r., head l., shield and spear in l., r. arm extended back.	Svoronos, Pl. 85, nos. 9, 12.	3	Pausanias 1, 24, 5; cf. running figure on Madrid puteal—traced to E. Pediment of Parthenon. ²
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4. *Athena Promachos on Acropolis.*

I a. V a.	ΑΘΗΝΑΙΩΝ Athena standing facing, head l., armed with helmet, spear, and shield.	Svoronos, Pl. 86, nos. 2, 11.	4	Pausanias 1, 28, 2 Lange identified this as the Promachos, and says turn of head like that of bronze statue.
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5. *Chryselephantine statue of Zeus set up by Hadrian in Olympieion.*

V a.	ΑΘΗΝΑΙΩΝ Zeus seated l., on throne, holding spear in l. hand and eagle in outstretched r.	Svoronos, not exact type given, cf. Pl. 92, no. 3.	1	Pausanias 1, 18, 6. Copy of colossal Zeus in Olympieion, which in turn was copied from Zeus of Pheidias at Olympia.
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¹ The references to Pausanias and works of art have been taken from Imhoof-Gardner, *Numismatic Commentary on Pausanias*, unless otherwise noted.

² Most recently discussed by R. Carpenter in *Hesperia*, II, 1, 1933, p. 40.

6. *Asclepius, cult statue in Asclepieion at Athens.*

Obverse classes	Reverse	References	Number	Remarks
III a. and b.	ΑΘΗΝΑΙΩΝ Asclepius standing facing, head l., draped in himation which falls over l. shoulder.	Svoronos, Pl. 98, nos. 8, 14.	2	Pausanias 1, 21, 4. Copy of the cult statue in the Asclepieion at Athens.

7. *Kore, one of the figures from a group of Praxiteles.*

I b.	ΑΘΗΝΑΙΩΝ Kore advancing r., holding in each hand a lowered torch.	Svoronos, Pl. 93, cf. no. 44.	1	In the National Museum at Athens is a group of Demeter, Kore, and Iakchos said to be by Praxiteles.
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8. *Apollo with lyre.*

I b.	ΑΘΗΝΑΙΩΝ Apollo standing facing, head l., wears long chiton with diplōis, holds patera in r. hand, lyre l.	Svoronos, Pl. 93, no. 1.	1	Has not been identified with any statue.
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B. Ancient Monuments represented on Athenian Imperial coins found in the Agora.1. *Altar of Zeus near the Erechtheum.*

I b.	ΑΘΗ in exergue. Altar of Zeus on which stands bucranium between 2 vases, olive branches on either side.	Svoronos, Pl. 87, no. 42.	1	There was known to be an altar of Zeus on the Acropolis near the Erechtheum.
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2. *Acropolis from the West.*

I a.	ΑΘΗΝΑΙΩΝ Acropolis from w., on top are Parthenon, Propylaea, and statue of Athena Promachos; a flight of steps leads to the Propylaea; in side of rock is cave of Pan.	Svoronos, Pl. 98, no. 22.	1	From prominence of steps, infer type was to commemorate the paving of staircase with white marble. ¹
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¹ Lange, K., *Arch. Zeit.*, N. F. XIV, p. 199 has made this suggestion. Judeich, Walther, *Topographie von Athen*, 2nd edition, p. 215, note 2. Unfortunately, we know only the possible outside limits of this rebuilding in marble of the steps leading to the Propylaea. They can not be earlier than the Agrippa monument which was constructed in 27 B.C. nor later than the coins which were struck in the 1st half of the 2nd century to commemorate the erection and completion of this project. An inscription *I.G.* III, 1281 F which mentions the progress of the construction of the steps is dated in the time of Claudius. It has led Grainger and others to suppose that this was the date for beginning the reconstruction. No doubt, this is correct, but if we accept the fact that the Athenian Imperial Coinage did not begin before the reign of Hadrian, it is necessary to suppose that the project was completed somewhere about his time and that the coins were struck for this occasion. If the marble stairway was completed before the beginning of the 2nd century and the coins struck to commemorate this event, then the whole group of coins with large modules, dark metal, thin fabric, and superior technique must be put back in the first century. The other alternative is that these coins were not struck on this occasion, but in this event there is no explanation for the representation of this type.

C. Mythological Subjects represented on Athenian Imperial coins found in the Agora.

1. *Contest of Athena and Poseidon.*

<i>Obverse classes</i>	<i>Reverse</i>	<i>References</i>	<i>Number</i>	<i>Remarks</i>
Head of Athena r., wears Corinthian helmet. Details obscure.	(ΑΘΗΝΑΙΩΝ) Contest of Athena r., Poseidon l., with owl in olive tree between them. Coiled snake on tree hostile to Poseidon.	Svoronos, Pl. 89, cf. no. 13.	1	Pausanias 1, 24, 3 and 5. Represents Athena producing the Olive and Poseidon the waves. Subject of W. Pediment of Parthenon may be source.

2. *Demeter in winged chariot drawn by serpents.*

I a.	ΑΘΗΝΑΙΩΝ Demeter standing, in car drawn by serpents, going l., wears long chiton; holds wheat and a torch.	Svoronos, Pl. 94, no. 23.	1	This may have been symbolic in the cult of Demeter or reminiscent of her trip to the Underworld.
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3. *Triptolemos in winged chariot drawn by serpents.*

I b.	ΑΘΗ Triptolemos seated l., in winged car drawn by serpents.	Svoronos, Pl. 94, nos. 13, 42.	3	Pausanias 1, 38, 6. May be connected with cult in the temple of Triptolemos at Eleusis.
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4. *Theseus and the Minotaur.*

IV b.	ΑΘΗΝΑΙΩΝ Theseus on l., attacking Minotaur who has fallen. Theseus holds club in r. hand.	Svoronos, Pl. 96, no. 14.	1	Pausanias 1, 24, 1. On the Acropolis is a representation of the fight of Theseus and Minotaur.
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5. *Theseus alone.*

VI.	ΑΘΗΝΑΙΩΝ Theseus advancing l., nude, r. hand raised with lash?	Svoronos, Pl. 96, cf. no. 23.	1	Theseus attacking Minotaur who is not represented in scene.
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D. Historical Events symbolized on Athenian Imperial coins found in the Agora.

1. *Agonistic Table represented on coins struck for Hadrianeia.*

I b.	ΑΘΗΝΑΙΩΝ Agonistic table on which is bust of Athena r., between owl r., wreath l., amphora beneath table.	Svoronos, Pl. 88, no. 58; Pl. 91, nos. 1, 9.	3	Pausanias 1, 18, 9. Hadrian builds gymnasium at Athens and institutes Games. Similar coins with ΑΔΡΙΑΝΕΙΑ on table prove this attribution. ¹
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¹ There are coins with the representation of the Agonistic table that have other legends inscribed on the table, which would signify that they were struck for other Games than the Hadrianeia.

2. *Themistokles standing on a galley.*

<i>Obverse classes</i>	<i>Reverse</i>	<i>References</i>	<i>Number</i>	<i>Remarks</i>
I b.	ΑΘΗΝΑΙΩΝ Themistokles in military dress standing on galley to r., carrying wreath and trophy; on prow sits owl, at stern a serpent.	Svoronos, Pl. 97, no. 17.	1	Pausanias 1, 36, 1. In Persian sea-fight serpent appeared on ship. Victory won by Themistokles, trophy placed in sanctuary of Artemis at Salamis.

E. Symbolical Representations on Athenian Imperial coins found in the Agora.

1. *Athena and the olive tree.*

II. V a.	ΑΘΗΝΑΙΩΝ Athena standing facing, head l., armed with helmet, spear, and shield; olive tree l., with snake coiled on it.	Svoronos, Pl. 87, nos. 20, 23.	2	May be part of group which would include Poseidon, snake looks l., to him.
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2. *Athena seated.*

V a. III b.	ΑΘΗΝΑΙΩΝ Athena seated l., wears helmet, long chiton and aegis with peplos over knees, holds patera or Nike in r. hand; spear and shield beside her.	Svoronos, Pl. 87, no. 33; Pl. 88, no. 3.	2	May be copies of statues not identified.
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3. *Olive tree with owl and amphora.*

IV a. VIII.	ΑΘΗΝΑΙΩΝ in exergue. Olive tree between amphora l., owl r.	Svoronos, Pl. 90, nos. 1, 7.	2	Pausanias 1, 27, 2. Olive tree in the Temple of Athena Polias.
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4. *Owl on upright amphora.*

I b.	ΑΘΗ Small owl sitting on upright amphora.	Svoronos, Pl. 90, nos. 35, 40.	2	Prominence of the amphora would suggest Panathenaic issue.
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5. *Nike with wreath or garland.*

IV a. V a.	ΑΘΗΝΑΙΩΝ Nike in motion to r. or l., holds garland or wreath.	Svoronos, Pl. 96, nos. 42, 45, 47.	1	Only fractional issues.
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6. *Prow with owl.*

Head of Athena l., wears crested Corinthian helmet. (Details indistinct.)	ΑΘΗ Prow of ship r., with owl on end.	Svoronos, Pl. 97, no. 43.	1	Fractional issue.
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7. *Serpent.*

<i>Obverse classes</i>	<i>Reverse</i>	<i>References</i>	<i>Number</i>	<i>Remarks</i>
I b.	ΑΘΗ Coiled serpent ready to spring.	Svoronos, Pl. 98, no. 17.	1	Fractional issue.

8. *Bucranion.*

I a. and b. V a. and b. VI.	ΑΘΗΝΑΙΩΝ Bucranion bound with a fillet.	Svoronos, Pl. 99, nos. 7, 8, 11, 19, 26.	5	Significance unknown.
Head of Theseus r., bareheaded.	ΑΘΗ Bucranion.	Svoronos, Pl. 99, no. 42.	2	Fractional issue.

9. *Owl.*

I a. and b. II b.	ΑΘΗ Owl to r., or l., sometimes olive branch in field. Various arrangements.	Svoronos, Pl. 88, nos. 23, 32, 38, 39, 40, 46, 50, 51, 52, 54.	13	Fractional issues.
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It has seemed appropriate in this preliminary study of the coins from the Agora to concentrate attention on the history of Athenian coinage. Since the excavations are being conducted in the heart of the city of Athens, it will always be the Athenian coins with their chronology and problems that will be most abundant and important to the excavation of the site. There are many phases in the chronology that are still vague and unsettled, but it is the hope, as the excavations progress, that more evidence will be brought forth to elucidate, if not definitely settle, the chronology which is now only tentative in a number of periods. The coinage of Athens is as unique in the histories of coinage as the drama or sculpture of the Athenians. A dull-witted people could never have used or invented such a coinage and the study of it only adds to the versatility of their genius.

JOSEPHINE P. SHEAR

THE ROMAN AND BYZANTINE POTTERY

Plates VIII—X

The material discussed here includes all the significant pieces of Roman and Byzantine pottery found during the first year of excavation in the Athenian Agora. It embraces, more specifically, those wares used in Athens from at least the first century B.C. to the eighteenth A.D. so far as they are represented among the finds of the year's digging. A brief introductory section on some Hellenistic sherds does no more than emphasize the need of a study of the pottery of that period before the origins of the Roman fabrics can be determined. Since only in recent years have the ceramic products of the Christian centuries been given due notice in some reports of excavations in Greek and neighboring lands, little comparative matter is at hand, and as a consequence of this and due, also, to the nature of this report the treatment of the material is primarily descriptive.

HELLENISTIC PROGENITORS¹

It is a truism to say that the Roman red-glazed pottery, the terra sigillata and the eastern provincial products, cannot be studied adequately and its problems resolved until a history of the Hellenistic wares has been written. So far the lack of closely dated material of that time and the refusal of most students to evince any interest except in the fancier vases have combined to prevent the appearance of such a work. The first season of the Agora gave no results of much value for the purpose but it

¹ The numbers under which the shapes are discussed refer to Pls. VIII—X where almost all the fragments to be described are drawn in profile half size. For the sake of brevity the following abbreviations will be used in the discussion of the Roman Pottery. The initial letter, followed by a number alone refers to the numbered pot-forms of the particular work.

CH: refers to the pots found in Roman graves at the hill Cheliotomylos at Old Corinth. These will appear shortly in a volume of the Corinth publications dealing with the North Cemetery.

D: Dragendorff, *Bonner Jahrb.* 96 and 97, 1895, pp. 18 ff. and Pls. I—III.

E: Österreich. Arch. Inst., *Forschungen in Ephesos* I, pp. 167 ff.

K III: *Mitteilungen aus dem Kerameikos* III, Oxé, *Terra Sigillata aus dem Kerameikos*, *Ath. Mitt.* 52, 1927, pp. 213 ff.

K V: Karl Kübler, *Mitteilungen aus dem Kerameikos* V, *Spätantike Stempelkeramik* in *Ath. Mitt.* 56, 1931, pp. 75 ff.

O: Knipowitsch, *Materialien zur römisch-germanischen Keramik* IV, I *Die Keramik römischer Zeit aus Olbia*.

Pr: Zahn, *Priene* (Wiegand and Schrader), pp. 430 ff.

Pg: *Altertümer von Pergamon* I, 2, pp. 268 ff.

S: Technau, *Griechische Keramik im Samischen Heraion*, *Ath. Mitt.* 54, 1929, pp. 48 ff.; Schneider, *Samos in frühchristlicher und byzantinischer Zeit*, *id.*, pp. 126 ff.

T: S. Loeschke, *Sigillata-Töpfereien in Tschandarli*, *Ath. Mitt.* 37, 1912, pp. 344 ff. and Pl. XXVIII.

would be only a continuance of past neglectful omission not to mention what little was brought to light.

Several fourth century and Hellenistic deposits were found but without stratigraphical evidence of successive deposition. A few fragments from these, together with others similar or patently Greek from disturbed deposits, illustrating the kind of pottery which was in use in the centuries preceding the appearance of the Roman wares, will be mentioned briefly here to contrast and compare the shapes and glazes.

With all the digging which has been done in Athens the occasional occurrence of red glaze before Roman times could not have passed unobserved. Apart from mention of misfiring, however, small notice has been taken of the phenomenon despite the fact that its frequency precludes the possibility of chance having been the cause in most cases. Even in the sixth century Athenian potters were producing red-glazed ware as is shown by several sherds, apparently from skyphoi of Corinthian shape, from a stratum of that date. As long, however, as black-glazed vases held sway the plain red ware would not greatly be sought after. Whether they continued to be produced throughout the fifth century in small quantity is unknown but at the end of the century and in the early fourth they occur rather frequently. As has been mentioned in describing some of the pottery from the Pnyx excavation, it is the lamps, more closely dated than the pots, which illustrate the fact best.¹ As for the pottery, some of the profiles of Pl. VIII are quite patently to be dated in the fifth or fourth century, the rest are later but none should come after the first century B.C. since they fall into none of the known classes of Roman pottery and come, for the most part, from deposits predominately, if not exclusively, Hellenistic. All the pieces are assumed to be of Athenian manufacture since it is as yet impossible to distinguish the plain Hellenistic wares of different localities.

In addition to this pottery, lamps of Types II, and V to VII² were found partially or wholly colored to the rich red-brown which Attic glaze shows when fired in an oxidizing atmosphere.

THE SHAPES. PLATE VIII, NUMBERS 1 TO 42

1 and 2. This shape seems to have had no Roman descendants. It is fairly common in fifth and fourth century times and is not infrequently red. No. 1, the earlier, has the bottom touched up with miltos and is unpainted except for a single ring; the bottom of No. 2 is completely covered with glaze.

3-9. Compare the stands of Samian vases, O, 7 *a* and *b*. The high form of the fifth century, Nos. 3 and 4, is replaced by the lower in Hellenistic times. The brown color of 3 is not unique although, when red and black occur on the same vase, as

¹ *Notes on Greek and Roman Pottery from the Pnyx*; to be published in an early volume of *Hesperia*, Annual of the American School of Classical Studies. Lamps of Broneer's types IV, VI-VIII were found with the glaze partly or wholly red.

² The types of lamps are those established by O. Broneer in *Corinth* IV 2; *Terracotta Lamps*.

on 4, there is usually no transitional hue. Concerning the resemblance of 9 to our Roman Class I in clay and glaze more will be said presently.

10-18. No. 10 (Fig. 1) is a good fifth century sherd with impressed palmettes and is only partly glazed underneath, but the bottoms of the others in this group are covered with glaze. No. 11 (Fig. 1) has palmettes of later form, 12 concentric rows of fine slanting lines; 13 (Fig. 1), a circle of dots, roughly rouletted, with plain oval depressions supplanting palmettes. The others are plain or have a crude depressed circle (15) or spiral (13) formed on the wheel. The feet of plates suffered little change until Roman times.

19-24. These bear a striking resemblance to our Roman Class III. The cone inside the bottom occurs on Samian pots but is not common.¹ Class III is boldly distinguished by the cone and heavy foot and one would like to regard these Hellenistic bases, showing a transition from black to red glaze, as marking the line of descent, but that can hardly be true if these are Attic.

25-27. Compare these heavy bases with those of Classes I and III. The glaze of these three fragments is of the splotchy, metallic lustre kind which is described below.

28-35. More Hellenistic feet. Compare 30 with 92. The profiles of 31-35 are rounded, the finish is smooth, the glaze is rich and thick and they are, therefore, of the same date as No. 2; hence the lack of similarity with Roman bases.

36-38. The rim form of 36 is a Hellenistic metallic form and often occurs in black glaze with metallic lustre. Neither it nor the earlier rounded rim lasts into Roman pottery which aped the more angular, metallic forms like 41. Nos. 37 and 38 show a lower foot. Compare Class I, 57-61.

39-41. The first (Fig. 1) has an excellent black glaze and must belong to the fifth century. Even its profile could be called metallic. The glaze of 40 is a thin wash which does not cover all the sherd evenly. No. 41 probably shows a development of this early form since the workmanship, the clay and the good glaze, which is non-porous and is mid-way in color between the early Attic red-brown and the Samian red, mark the sherd as Hellenistic, and it approximates none of the Roman classes. D 3 has a rim like this.

42. Little cups like this with in-curving sides were very popular in Roman pottery but Greek specimens are rare. The glaze is good and it is probably of the fourth century. In Roman times the rim changed its shape, the roll at the very edge indicating rather the copying of metal technique than a development of this simpler form.

43. A late fifth century shape (Fig. 1) which did not survive much later. It is noted here as an excellent example of the early Attic red-glazed pottery. Although the shape is usually found glazed in black, this fragment, of the best workmanship and of

¹ If, indeed, the bases of this shape figured in *Pr.* Abb. 551, p. 433 are Samian; the identity of profile of some pots on that and the preceding page with those of pots of other classes from the Agora fosters the suspicion that all listed by Zahn in his Class A are not Samian.

extremely fine, thin fabric, is covered with a thick, shiny glaze (absorbent) of a uniform rich, red-brown. The shape and the thin fabric are in imitation of metal forms but the fine, even-colored glaze shows that the red color was intentional.

This brief survey of some Greek pottery shapes shows, then, that not all survived into Roman times and those that did underwent a change, usually in the direction of sharper profiles as a result of copying metal forms. But these few examples, which are limited to some of the discoveries in the Agora, are not significant for drawing conclusions. The few indications given by shape are useful but for the most part they are accidental and their chief value lies in proving the early manufacture of red-glazed ware in Athens.

The fact that the natural (unfired) color of Attic glaze is red and that this color is retained by baking in an oxidizing atmosphere or is turned black in a reducing atmosphere, has been demonstrated by experiment and is illustrated by the pottery itself.¹ The quality and the color of the red glaze thus fired vary, naturally, with the composition and the temperature. It may have a glossy metallic sheen totally impervious, or a soft high gloss, very porous (as 43), or it may be intermediate between the two or it may be of inferior quality. None of the sherds here described shows the use of miltos as a coloring undercoat.² In this connection, however, should be mentioned the metallic, varicolored lustre which seems to make its appearance about the same time as these Athenian red-glazed pots. It takes the form of a metallic sheen overlying the black glaze upon which light shines with an oil-on-water effect. On 10 it appears sparsely, on the later 11, 19, 20, 25, 27, 29 and 30 more pronouncedly while on 26 it is so prominent as to resemble a glassy coat over the dull, black glaze. It occurs, too, on the foot and inside of 21 (black and dark red glaze) and on 24 (red) but its counterpart on red glaze seems to be a glassy sheen like the Arretine without the lustre. The method of producing this effect is unknown but it is certain that an accident of firing first caused it. It should be noticed that the lustre is not uniform or unbroken on any of our sherds. On the early No. 10 it appears merely as thin lustre spots on the excellent glossy surface, on the others as a special surfacing which is always broken by matt patches over which it did not form. Later the trick was thoroughly mastered as some Campanian bowls with silver-lustred medallions show.³ Our sherds prove that the effect was often aimed at as do, also, some of the lamps of Type XVII on which it appears prominently. Almost all the plain black ware of Hellenistic times has this lustre to some degree and indeed the predilection for it may have delayed the arrival into favor of red glaze.

¹ The results of experiments conducted by Binns and Fraser are published by them in *A.J.A.* 33, 1929, pp. 1 ff. In examining the Greek pottery from the Pnyx it was found that the portions of the vase unexposed to the atmosphere of the oven were the parts most frequently red. Similar observations had been made previously by Zahn, *Pr.* p. 405, note to No. 32, and others.

² An undercoat of miltos was found on several red-glazed fragments from the Pnyx.

³ A. J. Butler in *Islamic Pottery*, although concerned chiefly with mediaeval wares, cites and illustrates more ancient examples of lustre in his chapters on *Lustre Ware and its Origin*, pp. 37 ff. The Campanian vases are excellently reproduced in color on his Plates I and II.

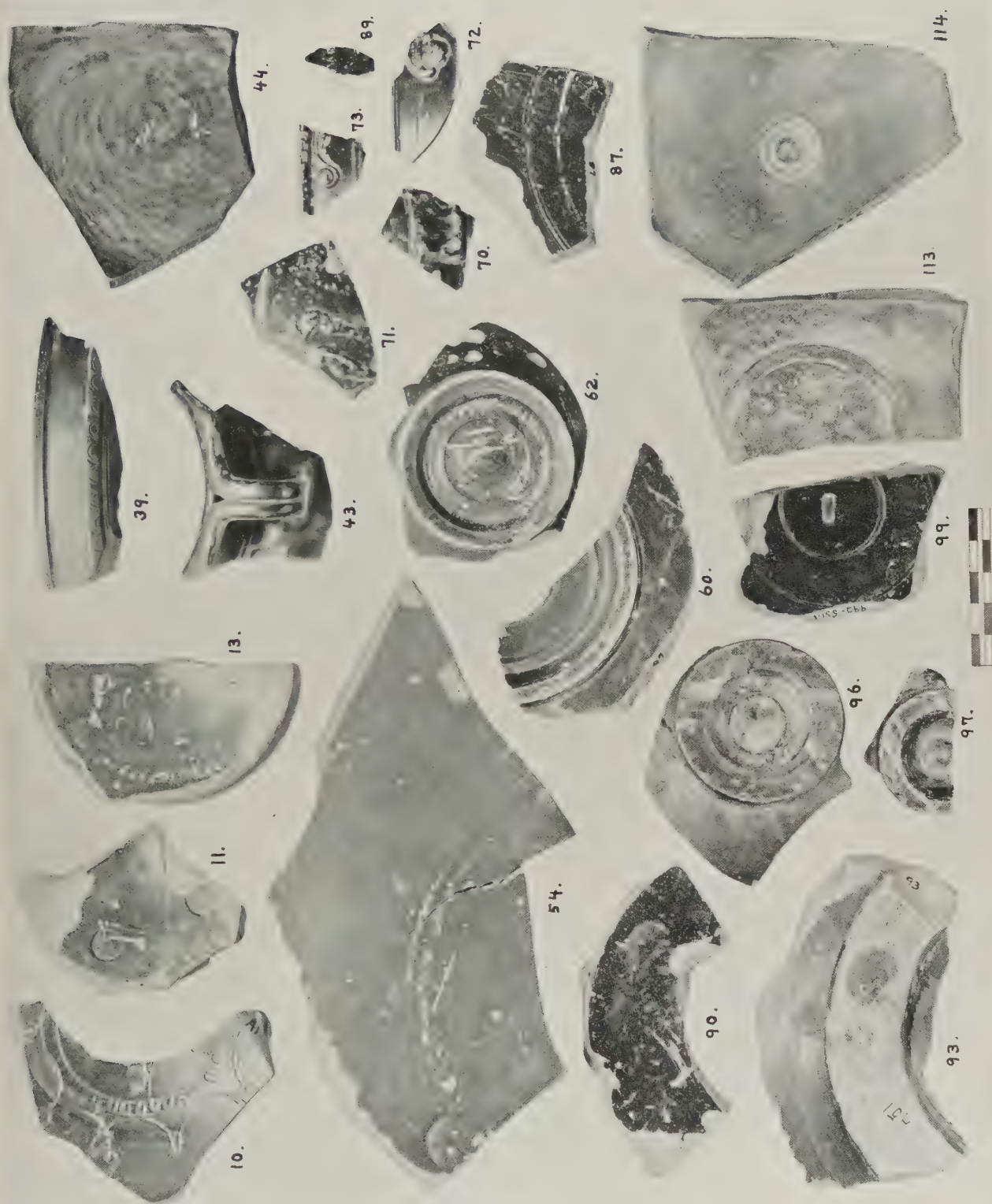


Fig. 1. Attic, Hellenistic and Early Roman Pottery

It has already been observed that the color of the Athenian red glaze approximates that of the Samian, or vice-versa. The hue is red-brown and prior to describing the Samian bases, Nos. 98 and 99, it can be noted that their glaze both in quality and in color is, if anything, more like that of the late fifth and early fourth century Nos. 2 and 43 than that of the Samian ware of the first and second centuries A.D. An interesting example of voluntary mottled effect in red and black is No. 44.¹ A good metallic lustre covers most of the base, casting a violet hue over the red and a silvery tone over the black (Fig. 1). The coloring of this piece is unique.

Athenian clay as well as glaze undergoes changes beginning perhaps at the end of the fifth century. The fine buff to reddish clay varies in quality and not infrequently it is of a whitish to yellow-buff hue. This may be due to underbaking or to the admixture of another clay. No. 1 is made of the light clay which, in this case, is very soft; so too are other black-glazed pieces, 11, 19, 20, 27. The texture is grainy and on some better-baked sherds where the coloring is reddish, it resembles closely that of Class III. The presence of mica in some pots and lamps of the fourth and third centuries should be noted² and it may well be that the great production of the fifth century exhausted the old clay beds and forced the use of others of inferior quality.

No. 9 is a puzzling piece; soft, light yellow-buff clay and dark red-brown glaze, non-porous and of poor gloss. In these respects it resembles Class I very closely yet the shape is unusual. The clay is somewhat nearer that of No. 1 than that of Class I and, although it is slightly more coarse-grained, the resemblance is striking. It was found in a Hellenistic deposit free from later intrusions which is to be dated roughly in the third and second centuries.

The series 19-24 is troublesome. Comparing the profiles with Class III one would presuppose a connection immediately but while the glaze supports this view the clay for the most part does not. But Nos. 19-24 are Hellenistic and probably Athenian while Class III was in use certainly in the late first and in the second centuries A.D. and is of Asia Minor origin. As noted above, 19 and 20 are black-glazed with a metallic lustre, but in the cases of 21, 22 and 27 the inside of the foot and the bottom are burned red,³

¹ Base of a nearly flat dish; fine, red-buff clay, thin and hard-baked. The outside is unglazed but very well smoothed; inside the glaze swirls around the centre in a mottling of black and of a light purple to reddish. The effect is striking if not beautiful but how this two-coloring was obtained is a problem. On some Early Helladic pots a streaked bi-chrome in black and red or orange seems to be brought about by the uneven application of the glaze-paint (it looks actually as if two colors had been used); on those pots the thin and thick streaks are readily discernible but on this piece the black are not noticeably thicker than the reddish. I suspect, however, that that may be the cause, the thinner portions having re-oxidized after the reduction took place while the thicker did not.

² It occurred noticeably but in extremely fine particles in lamps of Type VII (unglazed variety) and some contemporaneous pottery from the Phyx.

³ As has already been noted, the red color of the glaze was retained on those parts not exposed to the atmosphere of the oven—the inside of the foot and the centre inside where the foot of the pot stacked above rested.

and the lustre on the red brings a glassy finish to it as on Classes II (Italian) and III (Tschandarli). The clay, however, is unlike that of Class III. It has the light color of No. 1, burned occasionally to buff or reddish although that does not preclude the possibility of a high-temperature oxidizing oven, as a totally red glaze would necessitate, burning it to like color and hardness. No. 24 (all red) is most like Class III although clay and glaze are not quite so highly fired. Can these indeed be the ancestors of the Class III ware imported from Tschandarli? At present one can merely point out the resemblances between these Hellenistic and some Roman pots, here so striking, and hope for an explanation in the future.

CLASS I. PERGAMENE

This distinctive and wide-spread ware needs no introduction beyond a brief reiteration of its characteristics, a thick, whitish-yellow clay and a dark red glaze, which has only fair lustre but is seldom porous. The occasional occurrence of pots of thin fabric, darker clay and lighter glaze detracts little from the compactness of the group. It has been discovered at Priene, Samos, Athens, Corinth and Olbia and in view of this distribution it must have been found at many other sites but has been neglected or overlooked by the publications.¹

The identification of such pots as Pergamene was proposed by Zahn and has been followed by Knipowitsch.² It is of course tentative and must await confirmation by finds at Pergamon before final acceptance, but at present there are no reasons for rejecting the hypothesis and there are several for accepting it. In addition to those proposed by Zahn and Knipowitsch, another, perhaps the most cogent so far, is suggested by the Agora pottery. There are certain pieces so like the pottery found by Loeschke at Tschandarli that one must suppose them to have been imported thence, for reasons presented in the discussion under Class III, and a comparison of these with the Pergamene betrays several points of similarity: *a*) while the clay and glaze of both these classes

¹ Pottery belonging to this class which has been recorded so far:

CH: 119, 239.

E: p. 175, Nos. 65-67.

K: p. 216; No. 2 of Group IV should be included as a later specimen of the same ware.

O: pp. 21 ff., Group C and some of D, pp. 29 ff.; see following note.

Pr: p. 437, Nos. 159-162 and pp. 447 ff.; judging from the profiles, it appears that some Pergamene pots of darker clay-color are incorrectly listed under Class A, pp. 430 ff., with the Samian.

Pg: So little pottery from Pergamon has been published, and that so summarily, that no conclusions can be drawn from the few illustrated on pp. 268-270; it should be noted, however, that the most common shapes of this class in Greece are not among them although that fact, because of the small number of examples cited, cannot weigh too heavily against the proposed identification of the ware.

S: pp. 48 ff.

² Pr, pp. 447 ff. and O, pp. 21 ff.; but the identity with Knipowitsch's Pergamene group rests on clay and glaze rather than shape. The shapes from Olbia are different from those found elsewhere, except O 12 and 14. Can it be that they represent Pergamene shapes of the second century B.C. (before the ware seems to have been imported into Greece)?

are distinctive in their most characteristic phases there are some fragments which are almost transitional between the two in these respects; *b*) there is considerable similarity in the shapes of the two classes, particularly in the heavy fabric of the plates; *c*) in both classes the large plates when stacked in the oven for baking were separated from one another by small round disks of clay which occasionally in the Pergamene, always in the Tschandarli, left marks where they were in contact with the glaze on the inside and on the foot of the pot. Similar marking is not reported, nor to my knowledge found, on other Roman pottery. These points of resemblance greatly strengthen the cause for the identification of this ware as Pergamene when it is remembered how near to and in what intimate connection with the great city the port of Tschandarli must have been.

The date of the Pergamene pottery is not well fixed. The early fragments from the Kerameikos may belong to the second century B.C. while the absence of late profiles, our Nos. 107–109 for instance, suggests the end of the first century A.D. at the latest as a *terminus ante quem*. Most of the Agora fragments should fall between 100 B.C. and 100 A.D.

45–53. Rims. The large diameters show them to be from plates or large bowls; 51 and 53 belong with the shape of 67. No. 52 is unusual in the softness of the clay but its color and texture and the glaze are very similar to 68 so it should be classed here provisionally if not definitely; the shape is uncommon but it appears in this class in E No. 66 and in the related piece from Tschandarli, T No. 25.

54–61. Bottoms of plates or shallow bowls. This is the most common as well as the most characteristic shape of the class, of which 54 is an excellent example (Fig. 1). The glaze is fairly light, the clay correspondingly buff and the inside is decorated with a double circle of rouletted lines. It is the only base, however, ornamented in any way except 58 which has two narrow grooves. More important in the case of 54 is the fact that there are plainly visible inside and on the foot the marks of the clay disks upon which a like pot was set, and on which this one rested, in the oven. Three other bases show similar marks and their occurrence is of great importance in proving a relation with Class III, the only other ware on which they occur. It should be noted that in the bases of heavy fabric, Nos. 54 and 55, the inside of the foot is deep while in those of thinner body, Nos. 57 to 60, it is on the same level as the outside. The chronological difference between these two cannot be determined. The Kerameikos plates are level¹ while our raised ones are far nearer them in similarity of glaze than the level bases, which show a more careless and thinner application of glaze. At Tschandarli bowls with level bases are dated in the reign of Tiberius² but the raised Agora bases of thick fabric and of good glaze can be hardly later than the thinner specimens. There should, also, be compared the Arretine base, No. 88, which has a raised centre. The side of No. 61 bends up at a little distance from the foot and so resembles in this respect the shallow bowl bases of Nos. 92–94 (Class III) and the

¹ K, p. 214, Abb. 1; but note that the only a little later No. 8 is slightly raised.

² T 25 and 26 a.

Tschandarli pots just mentioned. A sharp little ridge is left inside the foot of Nos. 59 and 60 (Fig. 1) and this peculiar way of finishing the bottom of a pot seems to be a typical Pergamene device. It is found on some cups of this class from Corinth (unpublished), on our Nos. 62 (Fig. 1), 66 and 67 below and it is apparently copied in No. 91 of Class III. No. 56 is an uncommon form without an actual foot which seems to be unique.

62-68. Small bowls or cups. Nos. 62-64 are of the thick fabric, Nos. 65-68 of the thinner, although the profiles show that there is no strict line to be drawn between the two, and since the workmanship on both is careful the terms "poor" and "fine" are not applicable. The more important difference is that of shapes which, in general, are but two. One is a small bowl-like cup with a round foot and with sides which rise uniformly to a plain rim. The straightness of the side of 62 is unusual and more often the side curves inward at the bottom as in 62*a*. Cups of this shape are usually of a heavier, thicker fabric than those like 67 which illustrate the common early form of Roman cup found in Samian and Arretine ware, the distinctive feature of which in this class is the high, straight foot. The side may, as in 67, or may not, as in 68, make an angle near the bottom. The fine quality as well as the sharper shape of 67 indicates it to be the earlier of the two. The high foot shows that, if any influence is to be assumed here, it is Arretine and not Samian, for low feet were the rule even in the earliest Samian vases. Particularly characteristic of the thinner type of vase is the flatness of the base inside the foot, where the oft-occurring little ridge is found which has been mentioned above. One of the two similar pots from Corinth (CH 119) can be dated in the first century A.D., and all others with similar high feet should not be later.

The thin ware, particularly the cups, presents, thus, a superficial difference from the thick. They, also, seem to have been fired in a little clearer atmosphere so that the clay burned to a light buff and the glaze to a brighter red, changes which were facilitated by the lighter fabric and the usually thinner application of glaze. The glaze of 67 is glossy and of excellent quality, that of 68 and of the Corinth pots is poorer and more carelessly applied so that finger marks and light, porous patches appear where the clay is barely covered. The bases of plates do not show the color difference so distinctly since 59 has a glaze of a dark hue but the clay is a light salmon-buff, while the clay of 60 is the usual whitish-yellow but the glaze is light like that of the bowls. No. 63 is not glazed inside. It seems to be an exceptional case as it is the only pot or fragment of this class so far observed which is not completely covered by the glaze. Nos. 64-66 show exceptions to the common types. No. 64 appears to be the very high foot of a large cup of thick fabric which has a shape similar to that of 67 or 68. The flat bottom of 65 is unique and 66 combines a side like 67 with a foot like 62 and 63.

No. 69 is a piece of a high foot like those of 67 and 68, which it also resembles in clay and glaze. The vessel may have had a similar shape but it was very much larger.

CLASS II. ITALIAN

As no great amount of Italian ware came to light this subject can be treated briefly. Except for two small fragments, all were of plain, wheel-made pottery, and several had small applied decorations. A few of the plain sherds showed an unusually light shade of clay-color similar to that of 59 and 64-69. The glaze, too, was a little darker than is customary, for the formation of which under-oxidation must have been responsible. On some pieces accidents of firing caused a slight bluish lustre with an oil-on-water color effect to form. Its feebleness shows that the occurrence was casual, and that it was not a relic of the Hellenistic lustre on black glaze which is mentioned above. It furnishes further evidence as to how readily and unavoidably this sheen was produced in small measure.

70 (755-P 88), 71 (1003-P 164) (Fig. 1). Fragments of moulded bowls showing a goat and the legs of a warrior holding a spear.

72-77. Straight, upright rims of plates (except 73 [1004-P 165], from a cup). The first three have the common applied decorations, a Medusa head, a double scroll (Fig. 1) and probably a wreath.

78-82. Curved rims of plates and bowls. The glaze was applied so thick on No. 78 that it is much crackled. No. 82 is part of the side of the shape of common cup with a rim like 73. It was copied in the Pergamene ware (our 67) but it is more likely that the similar Samian shape was copied by, rather than from, the Arretine.

83. A most interesting piece and a rare Arretine shape. It is a direct development of the shape found on the pre-Arretine pottery of the Pergamene group; compare K III, 5-7. This early form occurs also in the Samian (P 132) and in the Gallic (Oswald and Pryce, *Terra Sigillata*, Pl. xli) where even in the first century A.D. it degenerates into the later form, a straight sloping edge (Oswald and Pryce, *ibid.*, 2) common in Greece in Samian ware of the second century (our 109 and references there).

84-88. Feet: 84 of a bowl, the others of plates or shallow dishes. The bottom of the plates inside the foot is raised as in the specimens of thick fabric of Class I, Pergamene, 54 and 55. No. 87 (Fig. 1) is one of the few Italian pieces which betray traces of stacking in the oven. On the bottom inside there is a circle marking the spot where the foot of a pot of the same size rested. Tiny bits of clay are imbedded in the glaze.

89 (476-SS 7) (Fig. 1). The stamp of Umbricius is a not uncommon one on Arretine vessels; *C.I.L.* XI, 6700, 819.

CLASS III. TSCHANDARLI

This is a most interesting ware which has points of similarity with both the Italian and the Pergamene. Except at Tschandarli, Olbia (references below) and Corinth (CH 94, 104, 36) it has not been reported. In describing the several small bowls of this kind from

Corinth I saw reason to suggest an Italian origin for them, but the new specimens from the Agora indicate Asia Minor as a certain provenience. Though the former attribution must be abandoned the considerations which prompted its adoption remain unchanged.

The fragments include pieces of the bottoms of nine shallow bowls and the bases of six deep bowls. The lack of remains of the upper parts of the pots is strange for the fabric is not delicate. As the profiles show, it is thick, hard, and durable and so is not subject to shattering. Most of the deep bowl-bases are whole. The workmanship is not very good for, though the inner surface is fairly well smoothed, the outer is left in a rough state and is often scored by the tool. The clay is hard and rather granulated. It ranges in color from a salmon-buff, which is a little more reddish and coarser in texture than that of the thin, Class I pots, to a dull, light red hue. A few particles of mica or quartz are occasionally noticeable. Inside, the glaze is of excellent quality and on most it can hardly be distinguished from the Arretine, although it is just a little redder than Arretine usually is. The glaze outside is seldom as good as that inside, being less glossy and more carelessly applied; and sometimes, it is so poor as to be almost matt and porous. Variations in it and in the clay are best remarked by a description of some of the pieces.

90 (Fig. 1). This is one of the least characteristic of the group and is strongly reminiscent of Class I, Pergamene, in shape and fabric. The clay is more finely grained than usual and has a light reddish-buff color. The glaze is that of this class but here it is a little lighter and is less glossy than most Arretine. On the outside it is even less glossy. A disk mark is visible on the inner surface.

91. This also has Class I resemblances such as the sharp little ridge left by the tool between the body and the foot, within the foot, which has been noted as occurring on Nos. 59, 60, 62, 66 and 67. The clay, too, is a rich, almost reddish salmon-buff, a hue met in lighter shades in Nos. 45, 59 and 64, but this may be due to underfiring, for the glaze is a little lighter than even on No. 90. Outside, as usual, it is thinner and is not so evenly applied. Above and below the foot there are the slightly impressed marks of clay disks used to separate the pots when stacked one upon the other in the oven.

92, 93 (Fig. 1). These two illustrate the characteristic shape of the Class. The clay is finely granulated, sometimes with tiny grains of yellow in it, and is hard-baked. Inside the glaze is thickly and evenly applied and varies a little in shade; outside it is always poorer, sometimes almost matt and with light, barely covered spots. Marks of the clay disks are always present.

94. Although the bottom is almost flat this was probably a deep bowl, hence the narrow foot. The size would explain the disk-marks, none of which occurs on the other deep bowls. The clay is of more pulverized consistency than usual and is more cinnamon in hue, and the former quality may explain the serious chipping which the glaze has suffered on the inside. The glaze is a little less glossy than is ordinarily the case but it is almost the same outside as in. Inside near the centre are two grooves. There is no trace of a stamp.

95-97. Typical feet for the deep bowls of this class, with a cone of clay shaped inside. Similar examples have been found at Corinth. No. 95 has a perfect Arretine glaze inside and out. The interior is scratched by the tool in a line which makes a spiral from the centre. The glaze of Nos. 96 and 97 (Fig. 1) is almost as good but it is a trifle redder, and on the outside it is less carefully applied. The clay is similar to that of the shallow bowls, Nos. 91 and 92. Disks of clay were not used in stacking these pots for baking, for marks of them never appear on these bowl bases, while No. 96 does show that left by the foot of a superimposed pot.

A glance at the text and profiles of Loeschke's description of the pottery from Tschandarli will suffice to show the very great similarity of this group with it.¹ The shape of the bases of the shallow bowls is that of his 26 *b*, and like ours "ist die Außenseite gegenüber der Innenseite oft vernachlässigt und nicht selten glanzlos" (p. 374). The shape of the smaller deep bowls is similar to his 19. Perhaps more striking is the presence of the disk marks. At Tschandarli not only were there found many sherds so marked, but the clay disks themselves were discovered in great numbers, proving thereby the presence of ovens. These marks do not occur in any other class of Roman pottery which I know except on some Pergamene fragments. Even the excellent glaze is matched, for in speaking of the later pots Loeschke says (p. 351): "Ihr Ton ist meist dunkelrot und der Überzug hat gleichfalls hochrote Farbe von lebhaftem Glanz. Hierdurch sehen sie den meisten gallischen und germanischen Sigillaten zum Verwechseln ähnlich." It has already been noted that more often the glaze of the pieces from the Agora is lighter and redder than the Arretine usually is and so is more like the Gallic. It is with these later pots from Tschandarli that ours must be correlated. The earlier ones are dated as Tiberian-Claudian on the basis of lamps found with them and the later are placed in the second century (T, p. 401 and 402). The deep bowls were found in both early and later strata, but the glaze of ours places them with the later, while among the shallow bowls only No. 90 has a profile more like the earlier 26 *a* of Loeschke's series than the later 26 *b*. It is very probable, however, that some of the Agora sherds belong to the first half of the first century A.D., and that none extends far into the second century. None shows a glaze as poor as a late second century bowl from Corinth (CH 36). Two pieces from Olbia (22300, p. 47 and 22367, p. 48) indicate that the pots were exported northwards as well as to the west.

So here one has a ware which was made within the Pergamene sphere of influence but which exhibits Arretine characteristics. Certainly Loeschke is correct in emphasizing the strong Italian influence at Tschandarli in early Roman times (T, p. 402). The glaze shows a conscious effort at imitation, but the similarity of clay is a chance and a less frequent occurrence. Fortunately shape and fabric were not imitated closely, too, for then the two wares would be indistinguishable. As it is, some sherds are a problem, for instance CH 104 *a* from Corinth. In studying that material I classified it as an

¹ T, Pl. XXVIII and the following references in the text to pages.

example of late Italian manufacture and, though it now seems that the other pots of the group there described are not Italian, that sherd must still be regarded as such by reason of its thinness, and so it should be placed with the Arretine.¹

But Tschandarli is not far from Pergamon and, if the Pergamene attribution of the ware so called is correct, there should be points of similarity between the two. Such indeed is the case. The shapes betray it well as illustrated in our Nos. 58 and 91, and the thickness of fabric is characteristic of most of the Pergamene and of all the Tschandarli pots. Nos. 90 and 91 are almost intermediary between the two classes, 90 recalling the thinner Pergamene bases and 91 possessing the little ridge inside the foot which is a particular Pergamene method of finishing the base. Even the clay of 91 is like that of a few Pergamene sherds, and the clay of all Class III is of the granulated, though usually coarser, consistency of the Pergamene. But the difficulty inherent in an identification based on similarity of clay is well evidenced by the identity in appearance of some of this class with some Arretine, as has already been remarked. The glaze is a more distinct feature but, of all other east-provincial fabrics, the Pergamene glaze most closely resembles Arretine, and therefore this class also, in color, and in hard, impervious quality. But the best evidence of a relation between these two classes is in the use, common to both, of clay disks for supports of vases in the oven. Their employment is limited to these two classes of pottery, the marks left by them on the glaze appearing occasionally on the large Pergamene bases and always on the Tschandarli.² So this ware, indubitably connected with the region near Pergamon by identity with the Tschandarli pottery, gives powerful support to the correctness of the identification of the Pergamene ware itself by the striking points of likeness between the two.

CLASS IV. SAMIAN

This ware, first identified correctly by Zahn, appears everywhere in Greek lands and is well on its way towards justifying its ancient fame in the eyes of scholars who have hitherto been sceptical in their misunderstanding of the name.³ Unfortunately

¹ Perhaps the Italian pots with clay similar to that of this group were made at some place other than Arretium. As noted above, the clay in question is a dark, brown-red, of granulated consistency with many yellow inclusions. It occurs in some of the later Roman sherds and Kübler calls "Egyptian" one such piece (K V, p. 84, n. 3). It seems barely possible that a fairly distinctive clay such as this could have been used by potters working in Italy, Asia Minor and Egypt; at present the problem can merely be stated, not resolved.

² As noted under Class I, the disk marks occur on No. 54 and several other large bases of like shape. Where they are clear enough to be measured they are found to be the same size on both the Tschandarli and Pergamene wares—0.015–17 m. in diameter.

³ The following material is known to me:

CH: 2, 12, 51, 207, 208, 216, 226, 227, 234, 235; as in the case of the Pergamene ware, Samian fragments are fairly common at Corinth and include some nearly whole pots and signatures, all as yet unpublished except a few stamps from the theatre, pictured in *A.J.A.* 33, 1929, p. 500, Pl. VIII, Nos. 36–39: ΔΩΡΟΝ and

even since the identification was made students have not always troubled to appreciate the fact, and this has delayed progress in the study of the ware. The date of the earlier pieces is still unknown so its relation to the Arretine cannot be fixed, but two of the pieces from the Agora are to be placed among the earliest typologically. The characteristics of this class are a fine, brown (cinnamon-hued) micaceous clay and a light red ("orange-red") porous glaze.

98. Piece of the bottom of a plate like S II. The clay is less micaceous than usual, very thin, very hard-baked and of a reddish rather than a cinnamon hue. The glaze is darker and is more like the Arretine in its brownness. It seems to be wholly impervious except inside the foot where water is slightly absorbed. The bottom was decorated by a rouletted band of slanting lines.

99 (992-SS 111) (Fig. 1). Bottom of a small bowl somewhat like P. 147. Inside are three grooves and in the centre the stamp **KAAA**. The quality of the piece is hardly less excellent than that of No. 98. It is just a little thicker in fabric and is more characteristically Samian. The clay, although hard-baked, is decidedly micaceous, and the glaze, barely porous, is redder, although in color it is closer to the Athenian red glaze of the early fourth century B.C. than it is to the Samian of the first and second A.D. The stamp, carefully imprinted from a well-cut stone, gives us the name of a new Samian potter, or rather the part of the name, for there are a number of common ones with these initial letters.

On pots such as these the reputation of Samian ware was established. They must be dated in the first century B.C. although how early in it is uncertain. The lack of similarity in profile shows that in this respect at least there was no borrowing in either direction between it and the Arretine.

The other sherds are later and resemble most closely Samian pots of the first and the second centuries A.D. Only No. 100 has the rich, thick, adherent glaze of earlier times.

KOIPANOY certainly, **ΘΕΟΔΩΡΟΥ** very probably, are the names of Samian potters but no mention is made of the kind of ware or even of the kind of clay and glaze.

E: pp. 169 ff., Nos. 15-64; almost all these are probably Samian.

K III: p. 221, No. 4 = Beil. XXVI, No. 9 (this is called Italian!) and p. 222, IV, No. 1 which is carelessly classed as "Jüngere hellenistische (kleinasiatische) Sigillata" along with a Pergamene fragment (No. 2).—Can one wonder at our lack of knowledge of the East Provincial wares when an authority like Oxé cannot, or neglects to, distinguish Samian even from Italian?

O: Group B, pp. 12 ff. and some of D, pp. 29 ff.

Pr: pp. 430 ff. and 440 ff.; the profiles indicate that some Pergamene pots are included with the Samian of Group A.

S: pp. 49 ff., II-IV. Strictly speaking, all pots of these groups are Samian since they are local products but naturally it was the early ones of II which first made the ware famous; Technau is not correct, however, in intimating that one shape alone established the reputation (p. 50) for, as it is unnecessary to say, there must have been more, our Nos. 98 and 99 for example. Shape is of prime importance only when considered in relation to the ware in which it occurs.

Technau mentions (S, p. 50) that his (early Samian) Type II is represented also at Rhodes, Gortyn, Ktesiphon and Sparta. In the museum at Split (Spalato) I counted over two dozen Samian pots of different shapes and in Italy found that little Samian cups occur rather often at Pompeii and Herculaneum.

100. Compare O 5 of which this may be a later rather than a divergent form. The rim is narrower and curved, and the side is more bowed.

101, 102. The ubiquitous cup rims. No. 101, the earlier, is ornamented with the common applied double scroll. Compare our Hellenistic No. 42 and Arretine No. 82.

103. A simple form of bowl rim.

104. The side of a bowl like O 9.

105, 106. Rims of plates like O 22. This shape would be expected rather in the second than in the first half of the first century A.D.

107–111. The first three show the rim form common in the second century, which occurs usually on flat-bottomed plates like 110 and 111. Compare CH 2 and O 1*a*; the latter is apparently dated too early. No. 111 has the bottom decorated inside with two sets of triple grooves and it doubtless carried a potter's stamp in the centre.

112–114. Bases of a small bowl or cup, 112, and of shallow open bowls, 113 and 114. After clay and glaze, the most distinctive feature of Samian ware is the very low foot or the complete absence of a foot. The inside of 113 (Fig. 1) is slightly sunk down in two steps, the ledge and disk thus formed being of large diameter in this instance. This is found commonly in later Samian pots, and several other fragments show the same treatment.¹ No. 114 (Fig. 1) is the latest of this series. The glaze is thinner and is almost matt, and the clay is harder and less micaceous. The two grooves in the centre may be a reminiscence of the earlier method of interior decoration seen in No. 113. Similar grooves are found on the local bowls of later Roman times, as No. 277. This fragment may well belong to the late second century.

CLASS V. LATER ROMAN WARES

After the second century the wares of earlier times cease to appear and others, somewhat less characteristic, take their place. These form the great bulk of the Roman pottery from the Agora. They have here been grouped under the subdivisions of a single class-heading, not by any means to belittle the real differences between them but rather to indicate that they do not form such closed groups as the preceding. Four different kinds of ware were distinguishable, the few variant pieces being placed with the group which they most resemble. The first three, A, B and C, represent importations, for the most part from Egypt; the last, D, embraces all the local products and so includes a few early pieces in addition to others which are contemporaneous with and are imitations of A, B and C. Stamped ware forms an important element in B, C and D. It has recently been made the subject of a thorough study by K. Kübler (KV) who deals, however, chiefly with the local products found in the Kerameikos. The stamped pottery

¹ It occurs on the Corinth pot CH 234 and was copied on the local bowl CH 230.

of the Agora is of particular importance since imported pieces were even more plentiful than the local ware and so add many more examples to the few found at the Kerameikos.

Apart from the stamped ware there is little comparative data for the shapes of this later Roman pottery since it seems to have been neglected previously.¹

A

The best sherds of the class are from pots made of extremely fine, pure red clay, which is thin and hard-baked. The clay has been made the factor of selection and serves to distinguish the fragments fairly well from all the others. The glaze varies from a good, impervious one of the hue of Arretine, which is rare, to one similar to the Samian but of thinner texture. On most of the pots it is a thin, porous coating of poor gloss and of a hue which approximates the Samian but which is decidedly more pink, and is often almost matt. Inside it is usually thicker and more glossy than on the outside, although almost invariably the exterior is completely glazed.

115-116 (Profile of 115 is like that of 139). Of best workmanship are the flat, plain-rimmed plates like these. The fragmentary one, 115, was found in a burned stratum above coins of Gallienus and Salonina (253-268 A.D.). Apparently, then, the second half of the third century saw a renaissance of fine pottery in the east provincial district. The shape is an old Samian one² and it is tempting to see in this ware a rebirth of the fine Samian pottery, but even though the difference in glaze might be spanned, the clay is quite different in color and is entirely free of mica. The rims and bases of over a dozen similar plates were found. No. 116 is thicker than usual and the tiny foot is placed at the angle of the side.

117. Doubtless the side of a similar plate but slightly curved.

118, 119. These two curved plate-rims are the only examples of this type in the group, all the others being like Nos. 115 and 116.

120. An excellent piece of the same quality as 115 and 116. The glaze, which is darker than usual, is a rich, glossy brown-red on both surfaces. It is slightly porous. Most probably this is the rim of a shallow bowl or plate.

121 (1000-P 161), 122 (1001-P 162) (Fig. 2). Rims of bowls with applied animals. The glaze is light and thin, and is considerably poorer than that of the fragments listed above. They show a fish and a dog, and are similar to fragments which have been found at Corinth.

123 (Fig. 2), 124. Rims of bowls with glaze in color and quality intermediate between the two preceding and No. 120.

¹ The usual plight of undecorated ware. Kübler gives a list of the publications of stamped ware, K V, pp. 79 and 80, notes. In the material available for consultation profiles are shown only in Fitzgerald, *Beth-Shan Excavations*, 1921-1923, Vol. 3, Pl. XXXIV and S, p. 127.

² S, p. 50, Abb. 41. Only metal prototypes can explain this identity.

125. Perhaps this is a local imitation. The clay is coarser and is brown rather than red. The glaze is of fair quality.

126 (Fig. 2). The rim of a straight-sided platter, a shape uncommon in Greece.¹ The clay and the glaze, which is a little browner than usual and is impervious, are those of

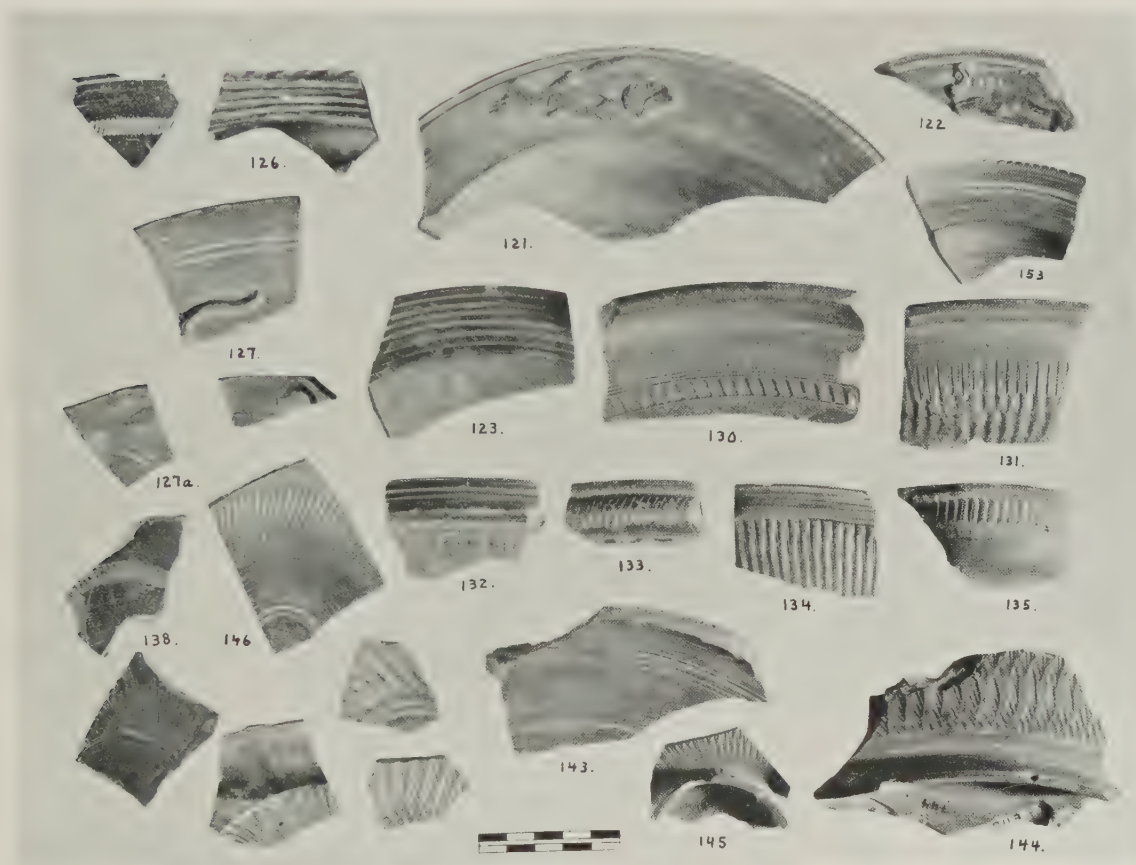


Fig. 2. Roman Pottery; Late A Ware

good pots of this group but this fact does not connect the piece inextricably with them. It may be of earlier date.

127, 127*a* (Fig. 2). The rim and bottom (from different pots) of a small open bowl with applied animals. A similar fragment is shown on Fig. 2. The quality of the glaze is mediocre and is like that of Nos. 121 and 122.

128. A plate rim. The glaze is of Samian color.

¹ It occurs more frequently in Asia Minor: E, p. 176, Nos. 6 and 7; Pg, p. 296. A handle from a similar shape was found on the Pnyx.

129–135 (Fig. 2). Rims of plates or of shallow bowls with roulette decoration. The feet of similar pieces are Nos. 142–145. No. 130 shows decoration on the inside, but this practice seems to have been reserved generally for smaller plates of much thinner fabric, some pieces of which are shown on Fig. 2 (not numbered). No. 146 gives the form of the base. No. 145 is small but has a foot like the larger ones and is decorated on the outside only. The clay of the larger bowls usually breaks with a shattered, laminated edge which is quite different from the even smooth break of other pots of the group. This may be due to its somewhat greater thickness.

136–139. Bottoms of the fine plates like Nos. 115 and 116. The bottom is either flat and marked off from the side by a small set-out (136–138) or by a tiny flat ridge which forms a miniature foot (115, 116, 139). Several other fragments of both types occur.

140–141. Feet of plates. Perhaps the form of the rim of this shape is No. 128.

142–145 (Fig. 2). Feet belonging with Nos. 129–135. Several grooves score the inside of all but No. 145. Two other fragments of large plates were found.

146 (Fig. 2). Bottom of the small plate mentioned above (129–135).

147–152 (Fig. 3). On none of the bases certainly to be placed in this group is there any stamped decoration, and either this ware went out of use before the custom of stamping the inside of pots became common or it was not affected by it. The plain curved rims, Nos. 118 and 119, however, of fabric thicker than usual, seem to be later than the rest and they may have had stamped bases. At any rate, without definitely deciding that they belong here, one can assert that of all the stamped fragments only these numbers could be of this group by reason of clay and glaze. Nos. 147–149 are the better; the glaze of 147 is a thick, although not too glossy coat much browner than usual, that of the other two of a light red, Samian hue; the clay as usual is pure in quality, reddish in color. Nos. 150–152 are nearer Group B of which they might be unusually good specimens. On all these pieces the bottom is flat and is covered by the glaze in an application thinner than that on the upper surface but not nearly so much more so as that on the outside of stamped sherds of Group B.

B

153–159. These sherds are of a nature intermediate between A and B proper. Unlike B the clay is pure or nearly so but in color may resemble that of either group. The thick fabric is foreign to A and on the whole they would belong rather here with B. Shallow bowls and plates again seem to be the shapes although No. 153 (Fig. 2) may have been from a deep dish. The very edge of its rim is notched at intervals. Two other fragments of rims similar to No. 156 exist. No. 159 (Fig. 3) is the only base to be placed here unless it be some of the preceding stamped bases. As usual the inside is marked by several grooves. The outside is very thinly glazed.

The more distinctive sherds are as numerous as those of A. The fabric is thick, the clay, which is brick-like in color and consistency, has a browner hue, and is always rough on the break; it often contains grit. The glaze can be said definitely to be Samian.

At its best it is exactly like the red, porous Samian of good quality and, while on many pieces it appears thinner, lighter and almost matt, it never assumes the dark hues found occasionally in A.

160, 161. The only two plain rims found. The excellent quality of the clay of No. 161 would justify its placement with the intermediate sherds above.

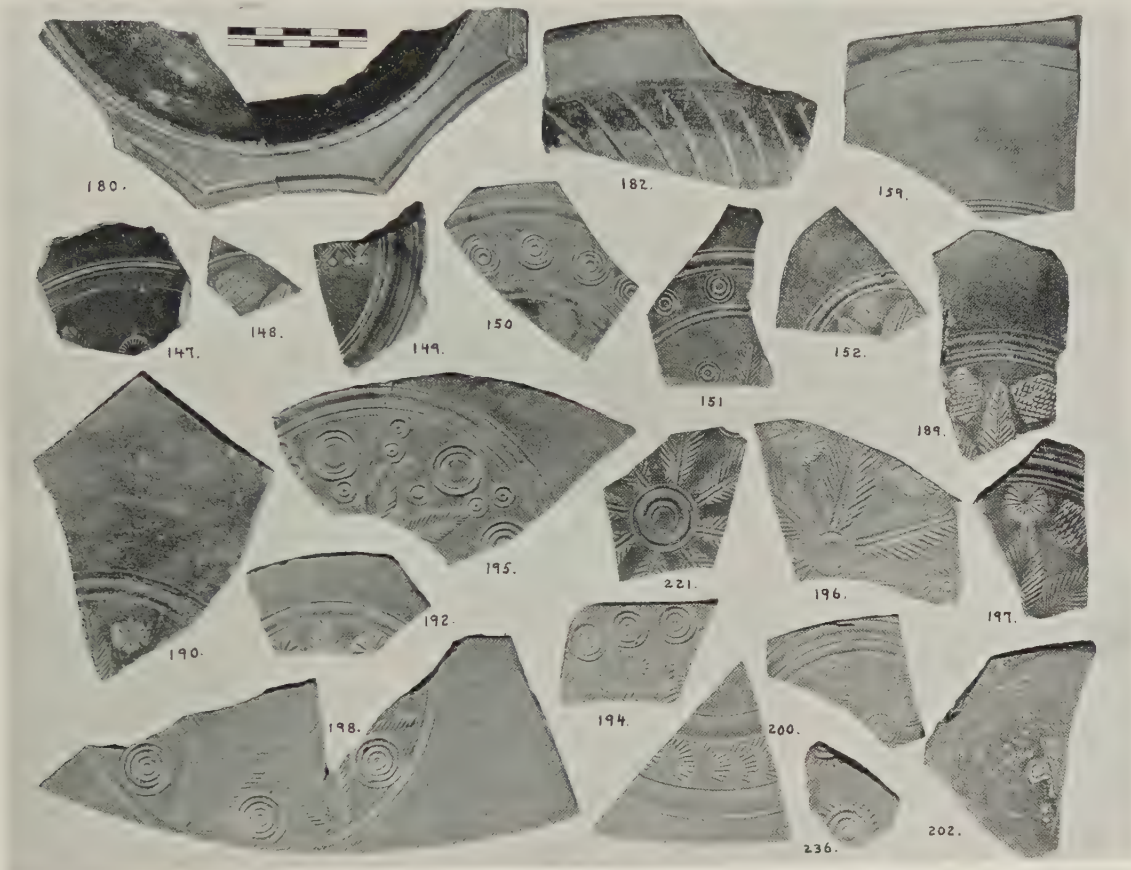


Fig. 3. Roman Pottery; Late B Ware

162. Two keeled rims of almost straight-sided bowls occur.¹

163–170. Rims of shallow bowls or plates with No. 170 showing the base form. No. 166 may be the piece of a spreading rim like Nos. 171–174. The series is arranged

¹ This seems to be a development of the keel of the slightly ridged rim of earlier pots like our Nos. 73, 101, 102; in Athens we find in the second and third centuries an overdevelopment of the straight rim (Nos. 280, 281) in both Europe and the Mediterranean area, of the keel; compare D 38 with our No. 162; also Fitzgerald, *Beth-Shan Excavations*, Vol. 3, Pl. XXXIV, No. 48 and Dragendorff, *Bonner Jahrb.* 101, p. 150, Fig. 15. The pots Dragendorff mentions there may be identical with our Group B (some of them have stamped decoration) except that he describes them as of fine, thin clay.

typologically but 163 is certainly the earliest. Compare our Samian Nos. 107, 109 and the notes there. Several other fragments mostly like 164 and 170 were found.

171–174. Rounded spreading rims of plates. Although they may not be parts of spreading rims Nos. 171 and 173 are included here because of similarity and perhaps No. 166 belongs to the same group.

175–179. Curved spreading rims of plates. With No. 175 should be compared Nos. 156–158 above. The clay of 178 is unusually fine.

180–183. Straight spreading rims of bowls and plates. Unusually fine are No. 180 (1002–P 163) (Fig. 3) and No. 182 (Fig. 3). The gouges on the latter have left the inside gently fluted.

184–202, 221, 236. Bottoms of pots. Like No. 170, Nos. 189, 190, 184 to 187 and 202 show the foot forms. No. 188 is shaped like the bottom of 170; 191 and 192 have faint feet like 189 while on the others feet are not preserved. The majority of the better stamped bases belong here as Fig. 3 shows. Only 170, 184 and 185 seem not to have carried a stamped decoration, and 186 and 187 are too fragmentary to judge. On the outside most of the bottoms are glazed but the coat is always much poorer than that inside, and is often a mere wash.

202 (Fig. 3) is particularly important inasmuch as it is the only fragment of the group which is stamped with a Christian symbol. It is that of a cross (or the cross monogram, for it is uncertain whether the blur at one arm is the head of a *rho* or a mark of double stamping, being more likely the latter). Although the impression is fragmentary and not too clear it is evident from one arm that the cross is jewelled. This arm is divided into halves in the outer one of which there are three, in the inner, two pellets. The jewelled cross occurs in the earliest Christian centuries on Coptic grave-stones and on the so-called "African" lamps.¹

C

Less distinctive in clay and glaze than the preceding but more so in shape is a third group of ware. A shallow bowl on a very low foot and with a keeled rim is almost the only form although the sizes differ considerably. It is a descendant of an early Roman plate whose evolution Knipowitsch has shown in O, p. 51, Abb. 12. The fabric is thin and hard-baked. The clay varies from brown to almost red, the latter hue being less common, and is finely granulated, and apart from tiny yellowish inclusions² is otherwise pure. The glaze is usually a matt red paint although darker hues of fair gloss occur; rarely is the outside not wholly covered.

¹ Dalton, *Byzantine Art and Archaeology*, p. 681; p. 611, Fig. 386; Wulff, *Altchristliche und mittelalterliche Bildwerke* I, Nos. 85 and 87 (cross) and Nos. 1238, 1239, 1241 (cross monogram); Duthuit, *La Sculpture Copte*, Pl. LXIII a, c, and Pl. LXVIII b.

² And so is like the clay of pots of earlier ware; see note 1, p. 291.

The rim forms are shown in 203–213.¹ No. 203 is earlier than the others and belongs to a small bowl or cup. Bases to go with this and with the half-dozen similar rims were not found but probably they were not stamped. No. 213 is smoked to black and purple and is probably an unsuccessful brother of 214–217 since the shape never occurs

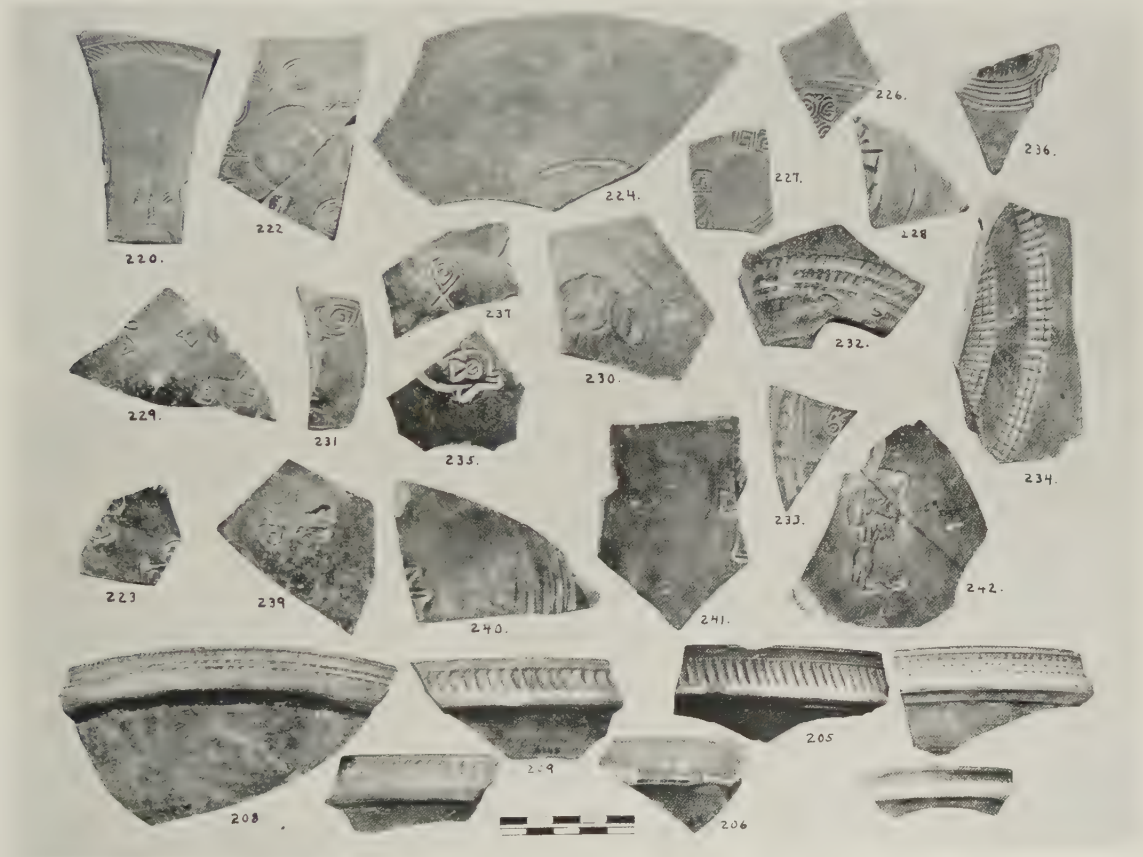


Fig. 4. Roman Pottery; Late C Ware

burned wholly red; it may, however, be a local piece. The rims, except 213, occur both with and without the roulette decoration illustrated on Fig. 4.

¹ Pr, No. 164, Abb. 551, p. 433 belongs to this class and, similar to the following Nos. 214–217, the outer edge of the rim is gray. The means by which this part of the pot alone was burned darker than the rest is uncertain but absence of the glaze-paint is not responsible (as Zahn, p. 405, note under No. 32) since it covers the rim too. Although the pots of this group are often very thin they cannot, because of their much later date, be related to the other thin ware mentioned in Pr, pp. 438 and 439. The plain rim is found on S, p. 127, Abb. 19 which also has a cross like our No. 241 in the centre; note the thin fabric. Dragendorff's mention of a rouletted rim of this shape in connection with pots bearing the stamp of Plusius (*Bonner Jahrb.* 101, p. 142 and p. 141, Fig. 1, No. 8) is puzzling but need cause no concern until such a stamp with such a rim are found certainly to belong to the same pot.

214–217. These rims were fired so that the paint on the outside of the rim was black. Elsewhere it is red. Four fragments with a profile similar to 208 are the same. The clay of 216 and 217 is less characteristic than usual but the peculiar firing recommends a place here rather than with the following group of local ware.

224, 225, 232, 234, 241, 218, 219. The first five show the common foot-form of stamped and unstamped bases. The last two occur, once each, unstamped.

A majority of the bases are decorated with stamped designs (Fig. 4) of which 220 (1017–P 178), 222 (1016–P 177), 223 stand apart from the others in excellency of workmanship and of glaze, which is a dark red of fair gloss. The clay is that of this group, however, so they are best included here. No feet are preserved.

Ten other sherds of ordinary quality show more simple designs. They are very fragmentary and only 224, 226–228, 237 are plain enough to be photographed. No. 225 has a palm leaf and circle and forms a link with the fine sherds just mentioned. Its glaze is unusually dark but did not cover the outside near the foot. The clay and glaze of 226–228 are very light and are not characteristic of this group but they are more at home here than elsewhere (227 = 1015–P 176).

229–233, 235. These show little stamped animals. No. 230 (1009–P 170) seems to be a cock with a bunch of grapes? in his beak; 231 shows the heads of fish. Only with the animals were the roulettes, used to decorate some of the rims, also employed in the bottoms of the pot as 232 (1007–P 168) and 233. No. 234 probably had animals in the centre. No. 235 (1008–P 169) is a dolphin.

236. This sherd has roughly incised lines between two sets of grooves and pendent from the outer ones. It resembles a sherd from the Kerameikos, KV, Beil. XXXVI A, 6 and Abb. 3, 7.

239–242. Christian symbols (239 = 1018–P 179; 242 = 1005–P 166).

Parallels for the decorative stamps are found *a*) on the so-called African lamps, a type found throughout the Mediterranean area and manufactured locally in various places but upon the question of whose origin the authorities refuse to commit themselves, *b*) on products of the Coptic arts and crafts in all materials (in the light of which one would think the origin of the lamps to be clear).¹ The stamped pottery of the groups B and C is that which Kübler has already indicated to be of Egyptian origin from the few samples of it found in the Kerameikos, and the greater richness of that from the Agora bears this out.² Hardly less readily matched are the little animals which appear occasionally. Again the two

¹ For references to this type of lamp see the section on lamps. One lamp fragment of this type from the Agora (Inv. number 114–L 114) must, by reason of identity of clay and glaze, have been made at the same centre which produced the pottery of Group B. True, the lamps are more common in Africa than in Egypt and from there, too, come plates with stamped animals and Christian scenes and symbols (Leclercq, *Manuel d'Archéologie Chrétienne* II, pp. 530 ff.) but earlier than both are the decorative stamps which all evidence on hand at the present connects with Egypt and to which, by identity of ware, the later animal and Christian symbols too are related.

² Herr Kübler kindly allowed me to examine several sherds in his possession which were discovered in Egypt (KV, Beil. XXXVI A); they are identical with those of our Groups B and C.

sources supply sufficient kindred, the lamps not so strikingly since animals, when represented on them, fill the centre and are not disposed around the rims as are the decorative ornaments, better so Egyptian work of all kinds where animals appear so frequently.¹

The Christian symbols are more intriguing, particularly in their variety. Of the five crosses and cross monograms found so far, no two are alike; parallel types for these are found not on the "African" but on later lamps and on Coptic grave-stones.² The jewelled cross of 212 has been mentioned. No. 223 appears to have a jewelled cross with the circles at the angles incorporated into the outline of the cross. No. 239 is a cross monogram with two circles in the lower angles. The, usually jewelled, cross monogram is most frequent on the "African" lamps but it does not have the circles, while the later lamps show the simple cross with circles in all the angles as do also the grave-stones except the one noted which is very similar. No. 240 has a short-armed Greek cross with the extremities concave and the sides accentuated by an inner line. No. 241 has a cross, or less likely a cross monogram, of the long type. The outlining of the form is common on the grave-stones. No. 242 shows a figure *orans*, but unfortunately the mould was coarsely cut and one cannot make out the detail. A long garment falls down to the feet with folds and hanging sleeves roughly indicated, the arms are raised almost as high as the head, on the very top of which is a row of dots, perhaps decoration on the mantle which seems to fall over the shoulders and to be drawn across the breast and around the left arm. The Orans is one of the earliest of iconographical figures and its Egyptian origin is pretty well assured.³

The relations between these groups of pottery are uncertain and can be determined only through further information concerning their origin and date. For the latter the following data alone are available:⁴

¹ Similar pots from Egypt: Wulff, Nos. 1556, 1557; other objects, Pl. XXXII, XXXIV. An excellent example is the clay cover (Wulff, No. 1471) which is decorated with stamps of jewelled crosses, palm-leaves, dogs, cattle and a shepherd. It is dated in the IVth-Vth centuries; unfortunately the cover is from Constantinople so its origin (Egyptian or African) is uncertain. Fish and animals are found also on some of the painted Egyptian pottery of the period, Wulff, Nos. 1564, 1565. Leclercq notes other specimens of stamped animals from Africa and Egypt, pp. 530 ff.; also *Musées de l'Algérie et de la Tunisie*, *Musée Lavignerie* III, Pl. XI (from Carthage; notice the absence of the earlier decorative stamps).

² Similar pottery, Wulff, Nos. 1559-1562; Leclercq, pp. 530 ff. The following, in various materials, are the closest parallels for the Agora stamps: No. 223: compare Wulff, No. 89 (grave-stone); No. 239: Wulff, No. 1241 and 1294 (lamps) and Nos. 84, 96, 98 (grave-stones). On a Coptic sepulchral slab (Dalton, *Catalogue of Early Christian Antiquities*, No. 942) circles are placed at the extremities as well and the *rho* is to the right; on both this and on our sherd it is the eastern open form, by far the most common in Egypt: M. A. Frantz, *A. J. A.* 33, 1929, p. 24. No. 240: compare Duthuit, Pl. LIX *a*; Wulff, Nos. 94, 95 (grave-stones); No. 241: S, p. 127, Nos. 5 and 6; Pg, p. 322; Wulff, Nos. 83, 89 (Coptic grave-stones) and Nos. 939, 940 (Syrian bronze crosses). Greek lamps of the fourth and fifth centuries show a similar variety in the crosses and monograms: Broneer, *Terracotta Lamps*, p. 110, Fig. 52.

³ Dalton, p. 673; Wulff, Nos. 74-78, and Duthuit, Pl. LXV *a, b* (Coptic grave-stones). Compare the earlier terracotta orantes, Kaufman, *Græco-Egyptische Koroplastik*, Pl. 31 and 36, 37; the dots on the head of this stamp may be a relic of the head-dress of some of the earlier types.

⁴ Conclusions drawn, it is unnecessary to say, may be altered at any time by the addition of more material. This résumé merely attempts to do as much as possible with the material on hand at present.

- Group A: i. No sherds or pots were found at Cheliotomylos or on the Pnyx.¹
 ii. A fine pot was found in the Agora in a stratum of burning over coins of Gallienus and Salonina.
 iii. Absence, or rarity, of stamped decoration.
 iv. Presence of moulded animals in applied relief.
 v. Absence of stamped Christian symbols.

The first two show that the ware was being used in the second half of the third century but had not come into general use before the beginning of it.² The third and fourth indicate that it did not continue long after the beginning of the fourth century, for stamped pottery became common then, and about the same time incision replaces moulding as the method of treatment. But this practice on terracottas does not furnish conclusive evidence. The fifth proves, however, that it did not continue long after the middle of the century for then crosses and cross monograms began to be used. The wares of Group A, therefore, are to be dated *ca.* 250–300 with the possibility of extension of fifty years in each direction.

- For Group B. i. Absence at the Pnyx.
 ii. Presence in a columbarium at Cheliotomylos not in use after the beginning of the third century.³
 iii. Presence of stamped decoration whose relation to the local Athenian presupposes its existence at least at the end of the third century.⁴
 iv. Presence of Christian symbols rarely.

The Corinth pot stands out as a surprisingly early specimen indicating the existence and even exportation of the ware before 300. It is not stamped but as noted in iii. such stamped decoration must have appeared a little before the fourth century. The length of the life of the ware is suggested by one occurrence of a stamped cross. The cross does not come into popularity as a Christian symbol until the middle of the fourth century and is not really common until the fifth.⁵ Since, although decorative stamps are frequent, the cross appears but once, it can be doubted that Group B pots were imported into Athens after *ca.* 400.

The indications drawn from these facts raise two points of question: *a*) Since stamps were used on B at the end of the third century, why are they not found, or not found

¹ See note 1 on p. 279; the cemetery at Cheliotomylos was in use from Augustan times up to the first part of the third century. The Roman pottery from the Pnyx antedates the Hadrianic retaining wall behind which it was found; Kourouniotes and H. A. Thompson, *Hesperia* I, 1932, pp. 180 ff.

² Sherds of this and the following (B) ware were found in the large drain in Section E which was filled up in the second half of the fourth century (latest coin one of Gratianus 365–383). This furnishes an *ante-quam* date only since many earlier sherds occurred too.

³ CH 145; CH 50, also from the Columbarium, belongs to this group too but is a less characteristic and poorer piece.

⁴ K V, pp. 80 ff.

⁵ M. Sulzberger, *Byzantion* 2, 1925, pp. 426, 430.

more frequently, on the partly contemporaneous A? The latter, apparently, lay outside the (Egyptian) sphere of influence which dominated B and carried on the tradition of the earlier plain Roman wares as it did at least one of the shapes. One should look for its origin, then, in Italy, Greece or Asia Minor. *b*) The decorative stamps of B find their parallels on the "African" lamps yet at the Kerameikos these appear hardly before the fifth century.¹ Despite the resemblance, then, the lamps must follow the pottery for the most part since any considerable stretch of contemporaneity would betray itself in the presence on the pottery of the crosses and cross monograms so common on the lamps.

- For Group C:
- i. Absence at Cheliotomylos and on the Pnyx.
 - ii. Presence of a few fragments in the large drain of the Agora (see note 2, p. 302).
 - iii. General presence in the highest Roman levels in the Agora.²
 - iv. Presence of incised decoration on some sherds.
 - v. Presence of Christian symbols rather commonly.

The few sherds from the drain (a couple of rims like 204 and 208 and a piece of a base like 241, of which the centre is missing and may have been stamped) show that the ware was just coming into use in Athens in the second half of the fourth century. The piece of this ware from the Kerameikos (K V, Abb. 3, 7) seems, accordingly, to be dated too early (third century, K V, p. 84), all the more by reason of the incised decoration which on terracottas and lamps is later. The base with the stamped animal from the Kerameikos (K V, Beil. XXXVI B, 4) is dated in the fourth century (*id.*, p. 78); the profile differs, however, and the animal bases from the Agora, although no foot is preserved, are apparently from the shallow dishes with low feet common to the group and not from deeper bowls on higher feet (K V, Abb. 3, 1). It may be possible to suggest the following chronological sequence for the group. Earliest are those pieces decorated with stamped circles, palm-leaves, etc., the field of decoration being surrounded by one or more plain shallow grooves. The decorative elements are the same as those of B and were probably taken directly from it. The presence of but one fragmentary base with five grooves, which may well have been stamped in the centre, in the drain indicates export into Athens in the second half of the fourth century. Second in date are the pieces with the stamped animals and incised decoration surrounded by plain or rouletted grooves. Their absence from the drain would signify a date at the end of the fourth

¹ The one lamp fragment mentioned on p. 300, note 1 shows that at least some of the lamps were made with the same clay and glaze as the pots. For the date see K V, p. 81.

² Hardly a valid point but at least an indication. In those areas not disturbed by mediaeval cisterns or modern cesspools yet not exhibiting definite strata, sherds of this group are found mingled with Byzantine; when the latter cease, C sherds continue down to the ancient street level along with earlier Roman wares (chiefly B and A) and with Greek.

century.¹ Third, and certainly later than the others, are the Christian symbols.² As noted above, these were beginning to come into use in the second half of the fourth century but not until the fifth were they commonly used. To that period at least belong fragments of the type and perhaps the examples without any stamp. How long the ware continued in use is uncertain. The coins show that the area was inhabited into the seventh century³ and, while it is unlikely that pottery should continue to be produced so long unchanged, there is no other to succeed it. This absence of any pottery in Greece between the latest Roman and the earliest Byzantine is a great puzzle which is only partly solved by the apparent depopulation of the country in early Byzantine times.

D. LOCAL WARE

A considerable quantity of the Roman pottery is of less fine quality than any of the preceding pieces, and is certainly of local manufacture. The proportion of this to the imported wares is relatively small and it seems indeed, since all those described thus far are importations, that all the good pottery used at Athens in Roman times was imported. *A priori* one would not expect this to be the case, but the sharp difference between this and any of the others makes the conclusion seem inevitable.

Clay and glaze vary considerably and the only constant feature is the poor quality of both. The clay may be any hue from very light buff to dark red-brown. Grit is usually present but the fabric may be hard or soft. The glaze does not merit the name and is a flat paint almost always matt. Generally it is some hue of red but careless firing produced black and intermediate shades. The paint on the exterior does not extend far below the rim. Despite such lack of character there is no hesitation in sorting out these pieces, as they fit into none of the other groups and are, in fact, the leavings. Where a few pieces even of these show slight peculiarities leading one to suspect an origin not local, attention will be called to the fact.

Most of this local ware was found in the large drain which, as noted above, filled up towards the end of the fourth century, and thus furnishes a handy date *ante quem*. The other limit can be determined by the Roman pottery from the Pnyx, all of which antedates the middle of the second century. A comparison of the two will show that, with the exception of the high-rimmed little bowls like 280 and the coarser forms 283 and 284, all the Agora pottery is later than the Pnyxian. Some of the shapes

¹ Such negative evidence is not too reliable but at present no other exists. A more symmetrically satisfying arrangement would be to place the stamped designs in the first, the stamped animals and incised designs in the second half of the century. Evidence against contemporaneity is the presence of the rouletted grooves with the animals, never with the stamped designs.

² The only cross with grooves about it is No. 240; four smooth ones. The glaze of this piece is a bit redder, the clay a little purer than the others.

³ Of the coins of the first year identified so far, those of the second and third centuries are common, of the fourth to the seventh less so; no emperor is represented between Heraclius, 610–641, and Leo VI, 886–912.

represented in the drain and those not found there were also in use in the fifth century and later, such as the incised jugs, 293–295, and the cup, 289.¹

1. *Painted Ware*

In later Roman times some pots were decorated with simple designs painted in thick, creamy white over the glaze-paint. The designs are spirals on the rims of deep bowls



Fig. 5. Roman Pottery; Local (Athenian) Ware

or inside more shallow ones, and less often other geometric or floral designs occur on the open shapes, Fig. 5.

243 (1013–P 174). Deep bowl with high straight rim set off by a keel and with two applied horizontal handles. This is the most common shape decorated and seems to appear only thus painted. The designs are confined to the rim outside.²

¹ The following shapes were not represented in the drain and so may be, but are not necessarily, later than those found in it: Nos. 269–271, 273, 275, 277 (without the white paint), 279, 281–282, 285–287, 289.

² Compare Pr, No. 134, p. 432.

244. Smaller, deeper bowl with vertical handles. Decoration, as before, with stripes on the handles.

245-249. Shallow bowls and plates. The decoration on these, naturally, covers the inside.

250. The common foot-type with two incised rings inside like 277.



Fig. 6. Roman Pottery; Local (Athenian) Copies of Imported Wares

251, 253. The sunk base, a peculiar way of finishing off the bottom of a pot. Note the usual two grooves inside.

252. A flat bottom. The piece is unique in that on the brown paint inside, the design of spirals in a circle of dots is drawn in black and not in white paint.

254, 255. Handle of a large jug, and part of the top of a small one showing that closed shapes were also decorated in this style.

256 (1010-P 171). Handle of a large dish. These have been noted under the terracottas. The white paint is found in parallel lines on top of the handle and inside

the vessel in the usual spirals. The heads show both the moulded and incised techniques. Recognizable animals are the following: lion (almost always with a collar), boar and ram (Fig. 6). The shaft of the handle is usually plain, but is occasionally moulded with spiral or parallel grooves. It is hollow and the longitudinal mould-seams show clearly.¹

This white-painted ware dates in the third and the fourth centuries along with the other pottery from the drain, as is further indicated by the presence of both moulding and incision on the handles.

2. *Stamped Ware*

Herr Kübler's study of stamped ware from the Kerameikos leaves little to be said about the relatively few fragments from the Agora. Samples of the different designs are shown on Fig. 6. Kübler gives the profiles (KV, pp. 76 and 77) and all ours are from similar flat-bottomed plates, except the strange base with the punched dots from a dish like 277 but smaller.

3. *Plain glaze-painted Ware*

267–273. Flat-bottomed dishes with rims of various forms. The size varies and some pots with a plain rim like 267 are very small and deeper. The flat rims of shapes like 272 are often deeply grooved, doubly or triply.

274–276. Little dishes or cups. The base-form of 276 is found on pots with the white decoration, 251 and 252. Sizes a little larger occur too.

277. Base of a bowl, rim form uncertain. A large number of bases like this, of varying sizes, but always with the two incised circles, were found. Strange is the absence of rims which might definitely be associated with them.

278, 279. Plain and spreading rims of deep bowls.

280. Rim of small bowl. The clay and glaze of this piece are good and differ from the other pieces. The shape, resembling that of early second century pottery from the Pnyx, shows it must be of no later date. The red clay is pure, the red porous glaze of fair gloss covers only the rim outside. It is uncertain whether this piece is an importation, or if this type of rim is a local variation. It occurs on the large white-painted bowls, but 280 is a unique piece and none were found to bridge the gap unless it be the two following.

281, 282. A rare form of rim with the keel accentuated. As just mentioned they may represent stages in the period of development between the early second century, 280, and the third century, 243. The shape occurs also in small bowls.

283–288. Rims of bowls and plates. The first two show the second century shape; the second two resemble pots of Group C. The last is a rare form of the later rim. Imitation is doubtless responsible for similarities with Group C.

¹ A bone handle carved to represent a horse's head is very similar to the incised clay ones: Wulff, No. 520; from Alexandria, dated VIth–VIIth centuries. Both are doubtless derived from the handles of metal vessels.

289. This odd and unique piece, a cup on a high foot, may not be local but it resembles this more closely than other fabrics. The glaze-paint, brown inside, is black outside where it covers only the rim. Cups on stands, though of different shape and with lead glaze, occur in middle Byzantine times. But the shape is not Roman and this may be a sample of their prototype.

290–292. These are interesting as Athenian imitations, or copies, of the finer wares of late Roman times.¹ With 290 should be compared 134 and 141. The piece is much better than usual. The clay is hard-baked, fairly pure, and the brown glaze-paint, of good quality where applied thickly enough, covers the whole pot. The surface is smoothly finished and on the outside are rouletted parallel lines. The glaze, however, shows very uneven application and several large inclusions mar the fabric. Nos. 291 and 292 are typically poor in glaze, fabric and finish; compare 170 and 158.

293–295. One handled jugs, the sides of which are decorated by incisions and grooves. The sizes vary as shown. Sherds from such jugs as these are very common and occur in the drain and in the highest Roman levels with those of Group C. The simple form of decoration was wide-spread although the shapes varied slightly according to locality; Wulff, Nos. 1532, 1534.

BYZANTINE AND TURKISH POTTERY

The Byzantine pottery from the Agora presents a less comprehensive survey of the ceramic history of the times in Athens than does the Roman, since it is less complete, lacks in large part the better wares, and is without evidence for chronology. Even more than in the deeper Roman levels had modern pits, cellars and cisterns disturbed the mediaeval fill. No stratification was observed, and while some of the numerous stone and mortar cisterns contained sherds, lack of coins made only their association of any importance.

No certain traces of any fabrics appeared to bridge the gap between the late Roman pottery and the earliest Byzantine *sgraffito* ware. Occasional pieces of coarse pots were found covered on one or both sides with lead glaze but these were too fragmentary to determine shapes.² The absence of a slip, especially over red clay, is an indication of early date in general but is not necessarily valid in the case of the rougher kitchen ware.

¹ Two of the three different profiles of the Athenian stamped ware are copied after Egyptian (our B) pottery shapes: K V, p. 85. They are represented by our Nos. 170 and 183; the third is found in the A wares, No. 118.

² Such pottery seems to be the earliest lead-glazed ware at Corinth: Broneer, *Terracotta Lamps*, p. 124, n. 3. The glaze, of course, is not actually brown but yellow; it turns brown through contact with the unslipped red surface of the pot.

No sherds of the Polychrome or the Petal Ware, the earliest Byzantine fabrics at Constantinople, came to light and even good *sgraffito* pieces were rare.¹ The coins, too, as many as have been cleaned so far, would indicate that only in the eleventh century was the area inhabited again to any degree. To determine limits in the other direction is more difficult, however, in the lack of evidence from other sites. The *sgraffito* technique survives to this day and to mark out absolutely pieces as Byzantine or Turkish or modern is not possible in many cases and, to be sure, would not be permissible, since the Turkish conquest cannot have disrupted life in Greece fundamentally and its ceramic history must describe a steady evolution marked by no cataclysmic changes and few innovations from middle Byzantine through to modern times. Since typology, then, becomes the criterion of classification and description, certainly one none too trustworthy, the chances of error are too great to justify any amount of exactitude in treatment. The classification proposed by Rice for the Byzantine glazed pottery will form the basis of discussion and reference will be made to his groups in mentioning similar ones represented in the Agora. In the present case, however, it will not be convenient to follow his outline exactly since some wares are lacking and others later are included, so the pottery will be described according to the technique of its decoration.

SGRAFFITO WARE

1. *Early Sgraffito Ware.* Rice B 1. Figs. 7-9.

This is one of the most wide-spread of Byzantine fabrics and the various designs of Fig. 7 are met commonly.² Whatever may have been the convergent influences which gave rise to the ware, the general plan and shapes are fairly uniform, rather deep open bowls (Pl. X 1, 2 = Fig. 7*l, j*) and plates (Pl. X 3 = Fig. 7*e*) with straight or turned up rim having a round central design surrounded by several narrow decorated bands, the outermost usually near the rim. The decoration is effected by drawing fine, thin lines in the white slip of the pot thus exposing the red clay so that in them the yellow, or less often green, glaze turns a brown or russet color, or black with green glaze.

The reproductions on Fig. 7 show how various the designs are both in the bands and centre circle but it should be noted that they are ultimately of two kinds betraying two conceptions of design. One is plainly linear (Fig. 7*b, d, g, k, m*), the decoration being formed purely by the coursings or interrelations of single lines; in the other the element

¹ The known Byzantine glazed wares have been classified and described recently by D. Talbot Rice in *Byzantine Glazed Pottery*, Oxford 1930. Frequent reference will be made to the wares listed therein. The Agora pottery is almost identical with that from Corinth (*Δελτ. Χρυστ. Αρχ. Έστ.*, No. 11, 1923, pp. 21 ff.), Sparta (*E.S.A.* 17, 1910-11, p. 23) and Thebes (unpublished).

² References in Rice; to be added are recent finds from the Athenian Kerameikos (*Ath. Mitt.* 53, 1928, p. 182), Samos (*Ath. Mitt.* 54, 1929, p. 135), and Corinth (*A.J.A.* 33, 1929, p. 523, and 34, 1930, p. 442). The Corinth plates are most important inasmuch as they can be dated by the evidence of coins to the eleventh and twelfth centuries.

is not line but space, the conception is areal, not linear (Fig. 7 *a, c, e, f, h-j, l*) and the function of line is not to form *per se* the actual design but merely to serve by darkening certain areas from which as background the reserved parts stand out as the design. In a few cases the emphasis falls equally upon the shaded and the reserved portions but



Fig. 7. Byzantine Pottery; Early *Sgraffito* Ware

this is due to the fortuitous symmetry of the design (Fig. 7 *a, c*) since it is evident that the desired effect was one of light on dark.

Which of these designs on the pottery is the earlier is not wholly certain but the fact that the areal is usually the more carefully drawn, that the incised technique brought an improved means of effecting the contrast of areas and that the linear style continued to live a long and for the most part degenerating existence after the areal disappeared indicates that the latter arose first, to be followed by the linear as an adaptation which declined in its artistry along with the fortunes of the empire. The quality of fabric and of glaze varies little. Most of the fragments are of rather pure, light buff (soft) to

red (hard) clay with a fairly thick colorless to light yellow or yellow-green glaze. Fig. 7*d* has a good green glaze; *h*, *k* and *l* are of thicker fabric and the glaze is thin.

Not infrequently animals take the place of designs as Fig. 8 shows. The shapes of the pots are the same, bowls and plates, except that on *c* and *h* a high foot like Pl. X 7

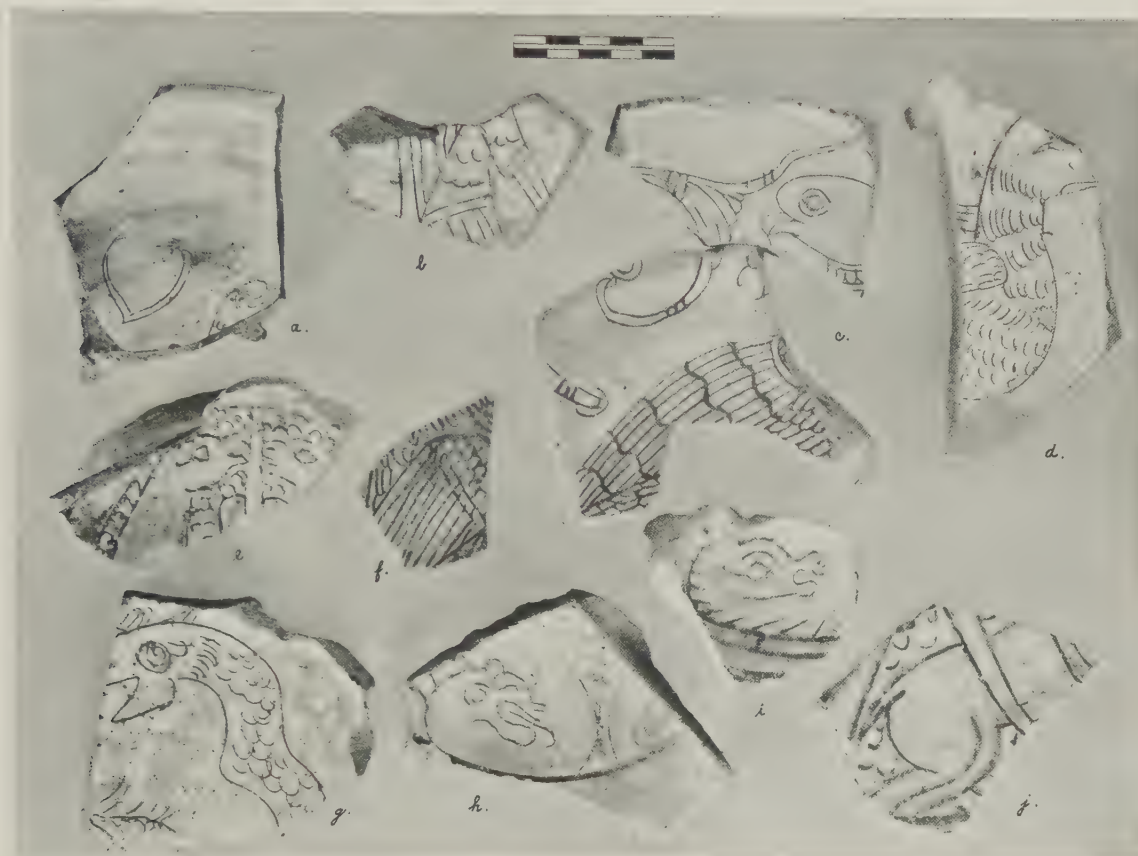


Fig. 8. Byzantine Pottery; Early *Sgraffito* Ware

occurs. The profiles of *a* and *c* are drawn on Pl. X 4 and 5. There is evident, however, in the rendering of the figures, a touch of carelessness, a hasty sketchiness of stroke which is comparable to the poorer linear designs. The fine dove (*c*) is an excellent specimen beside which the other birds and the serpent (*g*) appear at a disadvantage. These figures, contrary to the designs, occupy the whole field of the pot, confined by no encircling bands and with only occasional floral sprays as stop-gaps. Thus the effect is really areal rather than linear, with the difference that while light designs appear against a dark background, here a darker animal stands out from the white or yellow surface of the pot. This change was brought about necessarily by the choice of subject;

particularly in the case of birds is this so for it would be impossible to draw against a darkened field a bird with plumage indicated.

But with other animals whose bodies required merely an outlining to make them intelligible the light on dark treatment was employed. Of this *e*, *h-j* are examples. The working of the background required a certain limitation of field which, by reason of the labor involved, is of only moderate size. The problem is met on *e* by shrinking



Fig. 9. Byzantine Pottery; Early *Sgraffito* Ware, Later Styles

the ornamented field, which is no longer the whole surface of the vessel, and on *h-j* both by confining the field somewhat and by drawing the animals to cover most of it.

These last three fragments, and perhaps *e* should be included though while similar in other respects its ornamentation is not typical, deserve special reference. The thicker fabric, the high feet¹ and the heavier drawing mark them as later than *c* at least, although their glaze is of good quality. If they are not later than the other animals, too, they

¹ Of *e* and *h*; those of *i* and *j* are medium. Another unusual feature is the occurrence outside of *i* and *j* of a reddish or brownish slip. Most Early *Sgraffito* pots are slipped with the same white slip outside as in, a few are slipped and glazed (Fig. 7 *e*, *i*) and several of the poorer are plain (Fig. 7 *g*, *h*, *k*; 9 *a*, *d*, *e*, *g*); none is glazed without a slip.

certainly represent a distinct style. The vessels are plates, almost the whole interior of which is taken up by a large animal straddling a smaller one or with the smaller above him. The motif is eastern but these particular examples may prove to be local Greek adaptations of it.¹

A special group of *sgraffito* pots (Fig. 9 *a-f*) is set apart by uniformity of shape, a small bowl with turned up sides on a low foot (profile of *b* on Pl. X 6). The glaze is colorless passing to cream of good quality, the thin body is slipped and glazed outside, and there is simple decoration in the centre. Somewhat atypical is *a* in its intricate floral sprays and its decorated exterior. These are surely later than the better *sgraffito* and so they are probably derived from it. Fig. 7 *m* is a possible connecting link although for all its thicker fabric and plain exterior it is nearer to these little bowls. They may be contemporary with the crude and late pieces of Fig. 12 but developed to smallness of shape and compactness of design. Yet the purity and general good quality of the glaze would set them earlier.

Fig. 9 *g*, a large bowl of thicker fabric, is perhaps a poorer member of this rather select group; *h*, however, is a total outsider. It is the bottom of a small bowl on a medium foot; inside is a childish scrawl, perhaps intended to be a bird, covered by a dark olive glaze and outside is a slip of clay color (buff). It may be very late.

2. *Elaborate Incised Ware.* Rice B 2. Fig. 10.

Of this, the most striking if not the most subtly charming of Byzantine fabrics, the Agora yielded only a few pieces and those not the most characteristic. Rice makes the quality of line the distinguishing mark between this and the Early *Sgraffito* Ware; in the latter it is thin and fine removing only the slip, in this it is broad and heavy scraping away some of the clay as well as the slip. But stress should be placed not so much upon the line which the tool produced, not even upon the tool itself, scraper in place of point, but rather upon the motive which encouraged, if it did not initiate, its use, which was to draw the contrasting areal rather than the linear designs. This is the ultimate purpose the technique must have had. By its very nature the broad scraped groove could not form such twisting nests or bands of linear spirals, but it could heighten immensely the contrast between light and dark areas by darkening the field, not merely with a multiplicity of tiny strokes but by removing the white surface completely.

The small fragment Fig. 10 *a* is the only piece from the Agora which shows the initial appearance of incision on otherwise pure *sgraffito* bowls. It is employed first in

¹ Compare the Caucasian plate illustrated by Rice, *Byzantine Glazed Pottery*, Pl. XIX. Similar pottery is found in Greece itself (a fine plate from Corinth, *A.J.A.* 34, 1930, p. 443, Fig. 6 *b*) and the motif is seen also on marble reliefs. Pieces exactly like the Agora fragments have been found at Corinth (not published; for similar incised pots see in addition *Δελτ. Χρυσ. 'Ερ.*, No. 11, 1923, pp. 21 ff.; Figs. 7 and 11) and Sparta (*B.S.A.* 17, 1910-11, Pl. XVII 50).

the small circles which interrupt the inmost band of design and in the bands themselves,¹ then finally in the main centre design. There is evident reason why incision both made its way slowly at first and did not survive long, for whatever the process gained in sharp and brilliant contrast, it lost in delicacy and intricacy of design and in ease and speed of execution. The harsher tool could not follow elaborately woven patterns except



Fig. 10. Byzantine Pottery; Elaborate Incised Ware (except *h*)

at the expense of great pains and those its use did not exclude often had to have their plainness relieved by auxiliary *sgraffito* lines as in Figs. 10 *c* and *d* and Fig. 11. *Sgraffito* designs were taken over directly, becoming considerably simplified thereby; compare Fig. 7 *f* and *j*, the common quatrefoil rosette, with the incised versions, Fig. 10 *f*, still reminiscent of the *sgraffito* treatment, and *g*, fully incised. Fig. 10 *h* and *j* show a simple linear design derived from Cufic script transformed into an areal one by incision.

¹ *B.S.A.* 17, 1910 11, Pl. XVI 36.

Animals presented a problem to the artist using the new technique and the rabbit Fig. 10*i* shows that no effort was made to solve it at first. It is like the early *sgraffito* animals with body darkened and head reserved for the sake of detail of eye and mouth. Of course it was impossible to scrape out the whole animal, and not until the best days of the incised ware were past does the proper solution seem to have been found under



Fig. 11. Byzantine Pottery; Elaborate Incised Ware

the influence, perhaps, of the later *sgraffito* animals, that is, to restrict the field and scrape it away leaving the whole animal reserved.¹

Human figures appear occasionally and Fig. 10*g* shows a hand and perhaps part of a body.

While the incised ware is later than the best *sgraffito* the two would seem to be partly contemporary, for specimens of both have been found together in a context of the eleventh and twelfth centuries at Corinth.² At Constantinople the ware falls in the thirteenth and fourteenth centuries. The shapes are the same except that high feet are

¹ *B.S.A.* 17, 1910-11, Pl. XVII 48.

² *A.J.A.* 34, 1930, p. 443, Fig. 6*a* (*sgraffito* plate) and 6*b* (elaborate incised plate of eastern style; perhaps such importations introduced the incised technique into Greece and so are the earliest of the type).

more common, Fig. 10 *e, f, j* and Fig. 11. The profile of the latter is given on Pl. X 7. The glaze is good and the fabric only a little thicker than is usual among the earlier *sgraffito* pots.

3. *Late Sgraffito Ware*. Rice B 3. Fig. 12, 13.

The history of the *sgraffito* technique is long, indeed not yet all told as has been mentioned, and the specimens pictured on these two and the following plates take us



Fig. 12. Byzantine Pottery; Late *Sgraffito* Ware

through late Byzantine and into Turkish times. The inspiration behind the finer ware seems to have died and only a little new life sprang into being. Shapes, designs, glaze, and in the very latest pieces, fabric too change, but hardly for the better. The lines are heavy, coarse and careless and although rough hatching or dotting occurs sometimes, the patterns are linear primarily. These do not follow the old rule of central design with surrounding bands but spread themselves loosely over the surface in circles, segments and pendants, sometimes degenerating into a mere circle or two, or scrawl, at the centre of the pot (Fig. 13 *e* and *f*).

A characteristic of these later wares is the variation of glaze color and the frequent addition of splashes of brown or green under the yellow or colorless glaze. These colors are used also on some pots which are rather to be classed with the earlier *sgraffito* ware, Fig. 13*g*, for instance, and a particular variety of poor *sgraffito* pots of the earlier type with hastily drawn linear central and band ornaments is represented elsewhere in Greece with added decoration in green and black.¹

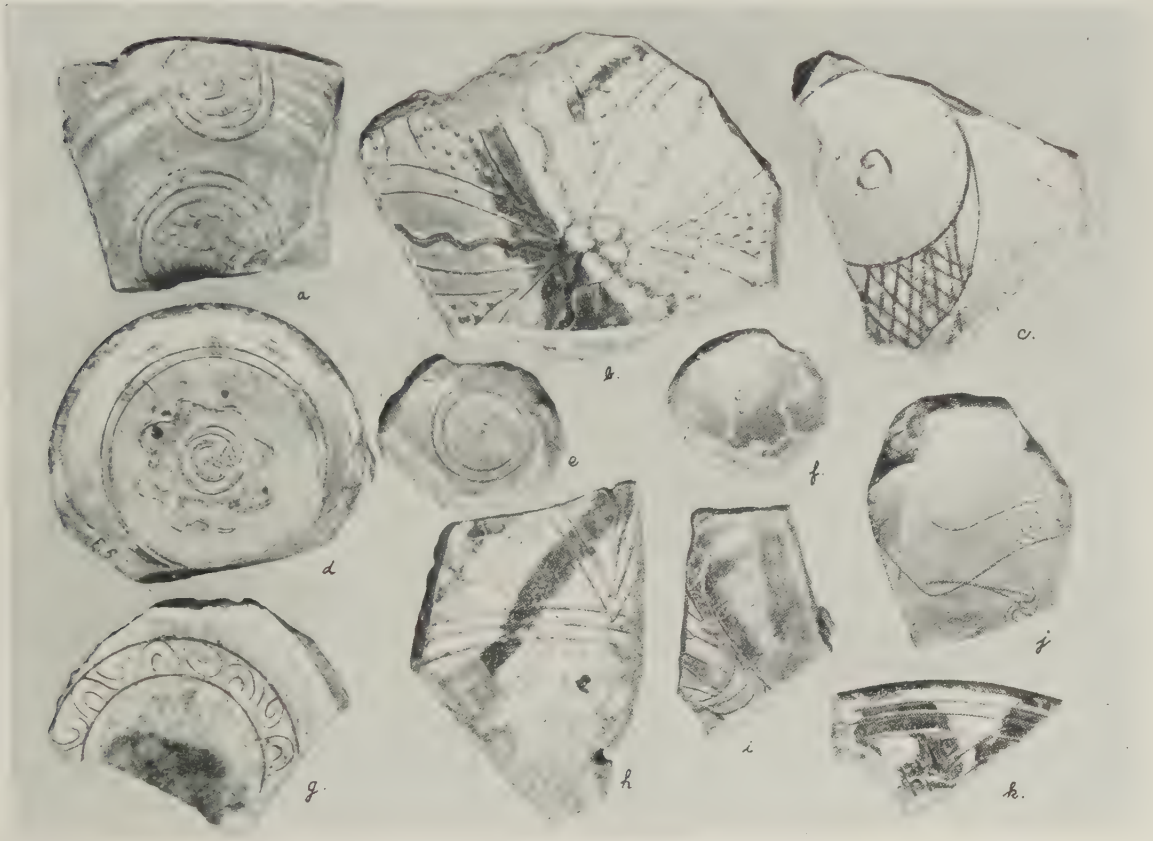


Fig. 13. Byzantine Pottery; Late *Sgraffito* Ware

A few animals belong here. Birds, or what are intended to be birds, have been found only so far. Of the fragment Fig. 13*j* the glaze is a uniform green, on Fig. 13*i* and Fig. 14*f* it is colorless or light yellow with added green, but the careless drawing is identical in all. Even the quality of line of the particular type of large *sgraffito* animal mentioned above approximates that of these later renderings and may be contemporary with them.

¹ At Corinth (unpublished) and Sparta (*B.S.A.* 17, 1910–11, Pl. XVIII 71 and 72).

A change of shape is evidenced in the turned-out rims of plates of Fig. 12 *a* and *e* (when flat as in *e* it is usually decorated; Fig. 12 *e* = Pl. X 8) and the turned-up rims of open bowls as Fig. 12 *b*. The feet preserved are medium.

The following pieces call for special mention; Fig. 13 *d*: this is the inside of the foot, the only fragment carrying decoration there. It is touched up with a streak of green and brown while the interior has a large spiral in the centre and a uniform light yellow glaze. Fig. 13 *k*: on this dark green glaze is applied apparently to form rough patterns and the parts not covered by it are unglazed. The sherds of Figs. 12 and 13 show, as usual, little attempt to conceal the natural body outside; it is not as well smoothed as in the earlier pots, only seldom slipped (Fig. 12 *a*, *e*, *f*, Fig. 13 *a*, *b*—here a dark green slip is used instead of white—and *e*) and only the fragment with decoration inside the foot is slipped and glazed (Fig. 13 *d*).

An indication of the relative date of these pieces is given by their poor quality. They must be later than the better *sgraffito* and the incised pieces, yet earlier than the following wares which take us well down towards modern times. The Sparta pottery should all come before the middle of the thirteenth century and of it only one piece approaches the later *sgraffito* (*B.S.A.* 17, 1910–11, Pl. XVII 42). Rice dates the Late *Sgraffito* Ware in the thirteenth to fifteenth centuries, some examples occurring both slightly earlier and later. One can safely, then, assign these fragments, for the most part of poor quality, to the fourteenth to sixteenth centuries.

4. Turkish *Sgraffito* Ware. Figs. 14, 15.

It will be noted in Figs. 12 and 13 that a number of the fragments have a plan of design which resolves itself into a row of triangles with bases pendant from a circle and apices centripetal. These are either drawn as triangles or formed necessarily by contiguous circles set inside and tangent to a larger circle. Now a certain type of pots, similar to each other in various points, shows this same general plan, sometimes with the addition of a narrow band near the rim. Specimens are illustrated in Fig. 12 *d* and 14 *a–d*. I should regard these as a special ware originating through a development and refinement of the later *sgraffito* pottery. The shape is uniform, a deep almost straight-sided bowl with plain rim ornamented by several grooves outside (Fig. 12 *d* = Pl. X 9); feet are not preserved but were probably medium. The glaze is hard and glassy, straw or colorless, with added brown (Fig. 14 *a*) or green (14 *c*) or both (14 *b*, *d*). The fabric is thinner and finer and the exterior is carefully smoothed and not infrequently slipped and glazed in green (Fig. 14 *c*). Until archaeology furnishes definite evidence for the date of the ware one can say only that it is later than the late *sgraffito* and so belongs surely to Turkish times.¹

¹ While a general homogeneity marks the group individual pieces vary from ancient to almost modern looking, so a considerable latitude of error is possible in assigning dates on the basis of appearance. Note the pendant of *c* with the scrawly loops so frequent in later pots of Turkish times and in *a* the more

Probably contemporary are the remaining three fragments on Fig. 14 *e*, *g* and *h*. Most interesting is *e* which represents a galley, the heads of the rowers appearing above the gunwale and fish swimming below the oars. As in the ware just described, the glaze is colorless with added green and brown. The pieces *g* and *h* are *sgraffito* versions of the late stamped ware mentioned below, or, it may be, the ancestors for certainly they seem to precede rather than to follow them. The glaze with added colors is the same as on

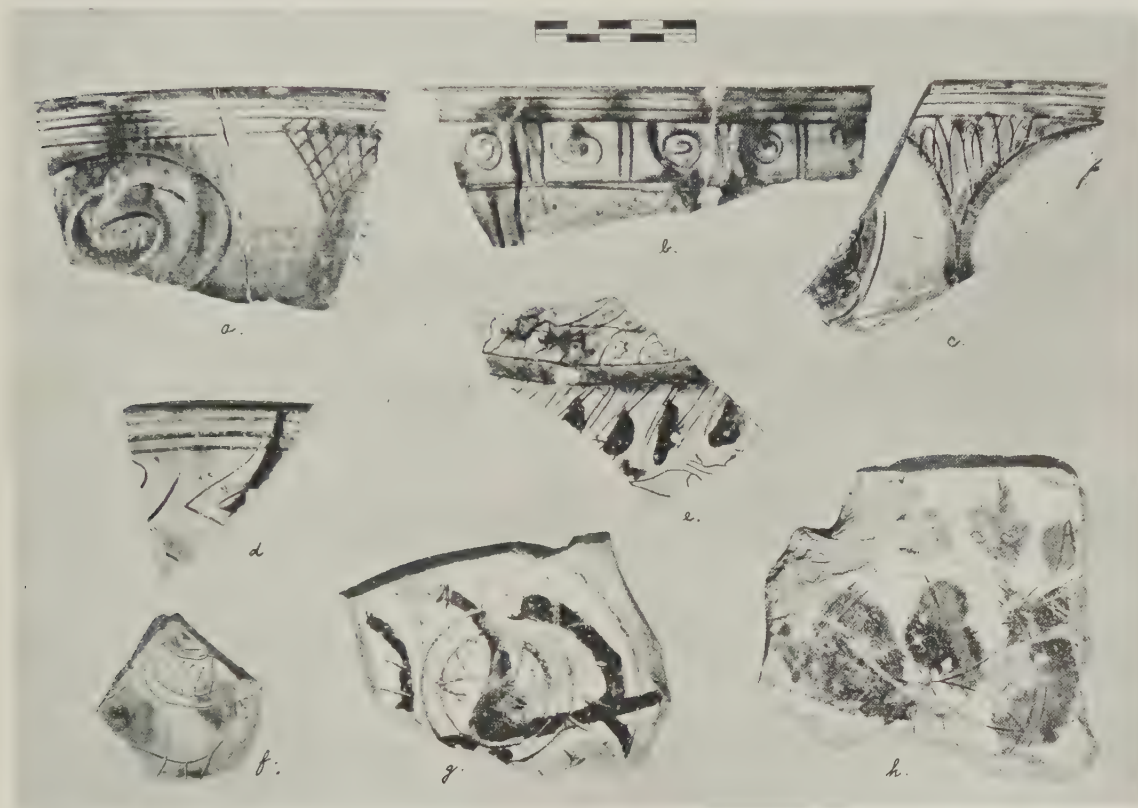


Fig. 14. Turkish *Sgraffito* Ware (except *f*)

the other sherds of Fig. 14, and is very different from the poor, thin coating of the stamped ware. The fabric is thicker and is less carefully worked, a characteristic rather of late than of post-Byzantine pottery. But the design, central star with surrounding band, is the same and the two can hardly be removed far from each other.

This decoration occurs also on trefoil-mouthed jugs with the addition of *sgraffito* scrawls around the neck, Figs. 15 *b* and 16 *c*; the whole surface is not glazed but only

Byzantine cross-hatching. Yet the quality of the glaze is late, and some bowls, without *sgraffito* decoration but identical in shape and with the same colorless glaze inside and green outside (as *c*), were found in the highest levels and cannot be very old.

the parts so decorated. Several of these jugs were found in an old cesspool along with dishes of late stamped ware, Figs. 15 *a* and 17 *d-f*.

A further development of *sgraffito* decoration enlivened by added brown and green is found in some comparatively modern-looking deep little bowls, Fig. 16 *a, e*. The influence of European china shows itself in the pure, thin and hard-baked (but red) clay and the

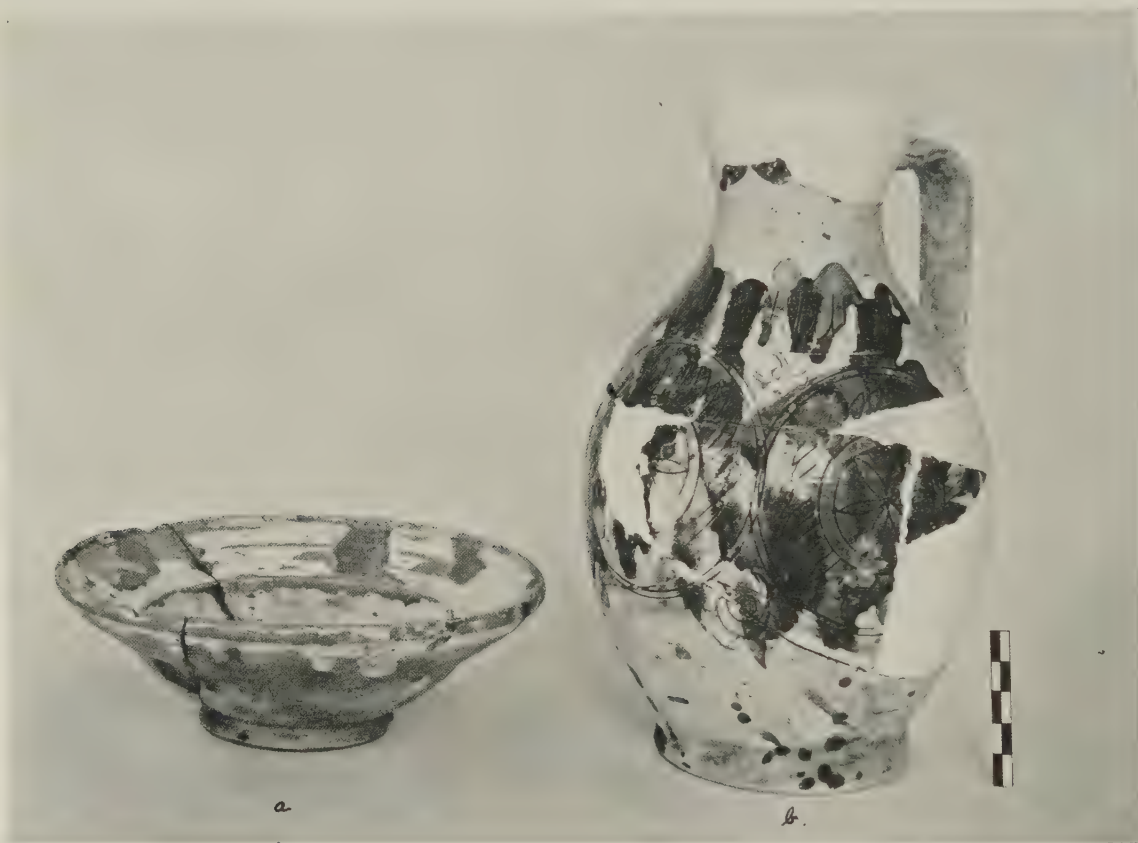


Fig. 15. Pottery of Turkish times

nearly colorless glassy glaze. In the latter the careless streaks of green and orange-brown stand out with a prominence more striking than becoming. The exterior surface alone is decorated, a point of total difference from all earlier pots of open shapes, whereon the inside only carries the ornamentation. The inner surface of these is slipped and glazed but plain. The three other bits of bowls Fig. 16 *b, d* and *f* may be a little earlier.

Fig. 16 *g* and *h* are one in fabric with certain Marbled Ware fragments and are similar to the garish little bowls. The red clay is fairly thin, pure and hard-baked and the outside is completely covered by the glaze which turns a deep russet over the clay.

Inside a cream (Fig. 16 *g*) or light green (16 *h*) glaze lies over the white slip and *sgraffito* lines and these latter are accented by the addition of green and a pale thin "Rhodian red." The bird of *g* can have no kinship with even the latest Byzantine fowls while the sketchy floral design of *h* faintly recalls the naturalistic renderings of the Asia Minor wares. Such pieces and the others of similar fabric are rather antiques than antiquities.

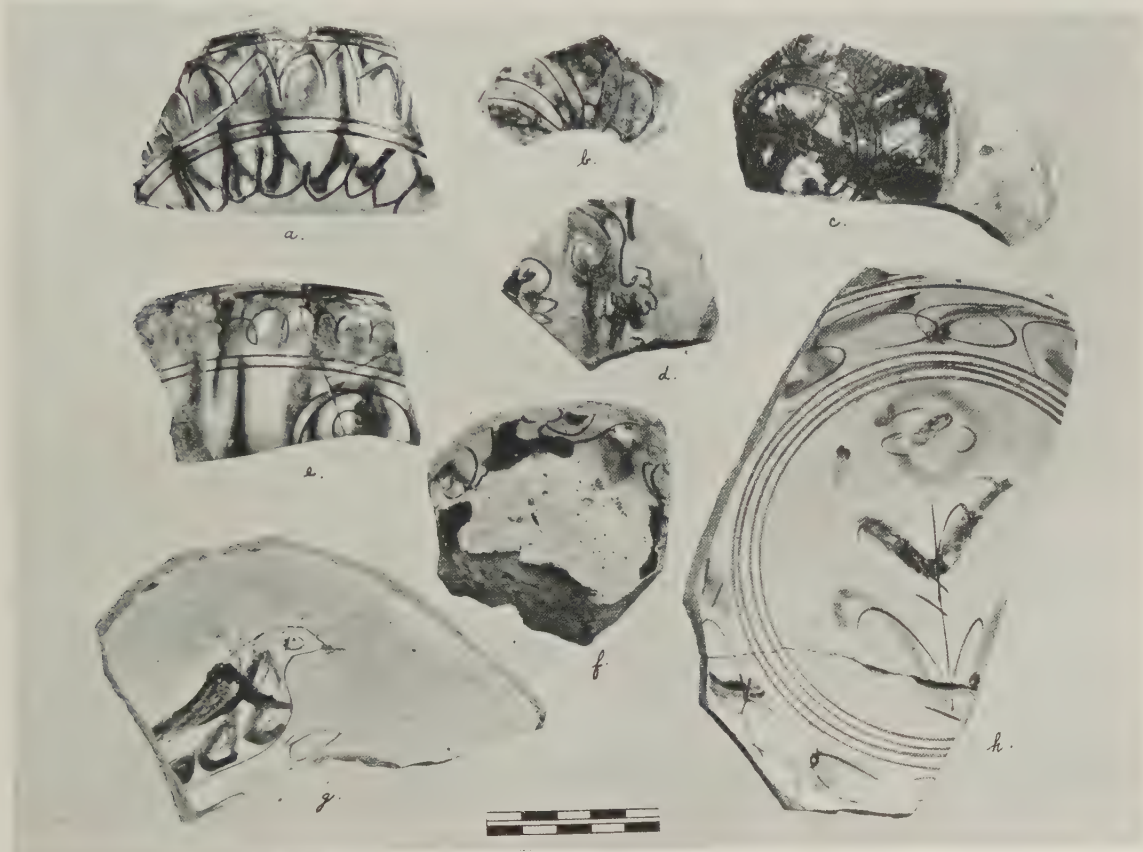


Fig. 16. Turkish *Sgraffito* Ware

STAMPED WARE

Pots of three different types were decorated with designs stamped into the fabric by a wood or clay negative.

1. *White Stamped Ware*. Rice A 5. Fig. 17 *a, b*.

The white body does not necessitate the use of a slip so the interior is stamped and then glazed. Fig. 17 *a* is part of a large open bowl which had a turned-out rim. A band of short, thick lines is at the angle of the rim and around the centre are floral sprays

between medallions enclosing an illegible object. The glaze varies from yellow to dull brown and green over the surface. The other fragment *b* is a far less clear fragment, also perhaps from a stamped pot; the glaze is a uniform orange-brown. The ware is dated in the ninth to twelfth centuries.

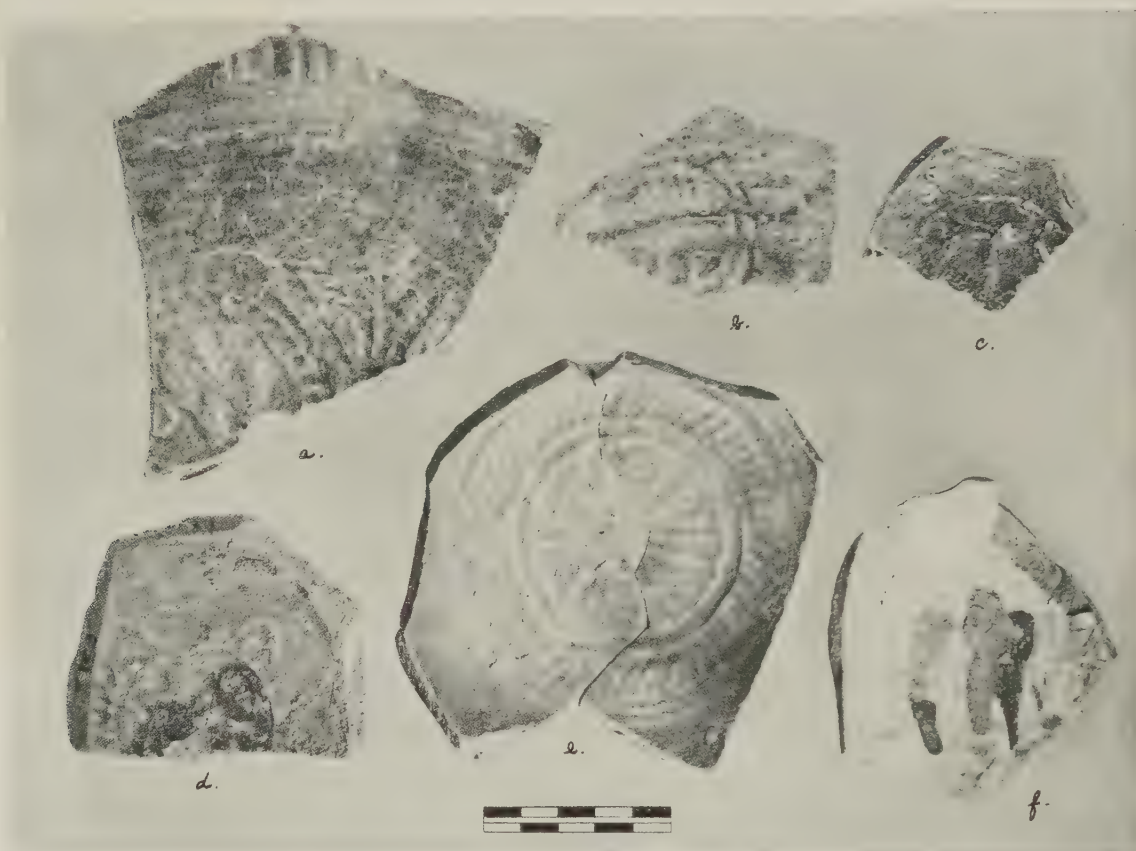


Fig. 17. Stamped Wares

2. *Red Stamped Ware.* Fig. 17 *c*.

The foot of a small bowl has the centre stamped with an octagon-shaped design. The buff clay, however, required the application of a slip after the stamping to preserve the green color of the glaze. Other examples of the kind have not been reported although some unpublished specimens are preserved in several of the museums of Saloniki. By reason of glaze and fabric it cannot be very late and the design is reminiscent of the Elaborate Incised Ware so it may be assigned to the thirteenth or fourteenth century.

3. *Turkish Stamped Ware*

The technique is the same as that of the preceding fragment but on no other points is there similarity. The shape is a medium-sized bowl or dish with low foot and a flaring rim separated from the body inside by a ridge (Fig. 15*a*). At the centre is the decoration consisting of a six-armed star (Fig. 17*d*) or Greek cross with dots in the angles (Fig. 17*e*) surrounded by a band of petals (Fig. 17*d*), slanting lines (Fig. 17*e*) or eyelets (Fig. 17*f*; the centre of this piece is illegible). The interior is slipped and covered with a very thin orange-brown glaze of the poorest quality touched up with a streak or two of dark brown and green at the centre. Not infrequently the glaze is applied only in spots (Fig. 17*f* and Fig. 15*a*) leaving the slip exposed. The designs on these pots relate them to certain *sgraffito* bowls and jugs mentioned above; they may be later than the bowls but were found together with the jugs in one cesspool. The fragments always occur in the highest levels. On some specimens the stamped decoration is omitted but they are in all other respects identical with those on which it is present.

PAINTED WARE

1. *Slip Painted Ware*. Included by Rice in B 2. Fig. 18*a-f*.

The decoration is formed by painting white slip on the pot so that the glaze, which is colorless to light yellow, retains its color over it but turns brown over the red body. In one case, Fig. 18*e*, to darken the ground color, the inner surface of the pot was covered with a dark red-brown slip before the white was applied. This is an easy method of obtaining an Elaborate Incised Ware effect but permits of linear designs. These they always are, too, and while a few fragments show a direct copying of *sgraffito* linear designs most have more simple, loose and degenerate ones. It is evident, then, that this ware as a whole is later than the better *sgraffito*. The shapes are medium-sized open bowls on low feet; a small turned-out rim is found on Fig. 18*e*.

2. *Black and Green Painted Ware*.¹ Fig. 18*g-l*.

On the white slip covering the buff to red body of the pot are painted designs in black and black outline filled in with green. An evolution can be traced perhaps in the use of the over-glaze. On Fig. 18*j* this is a fairly thick, light yellow of good quality, on *h* it is colorless and thin, on *i* and *k* so thin as to be visible barely and on *g* entirely lacking (as on the Sparta sherds *B.S.A.* 17, 1910-11, Pl. XVIII 68 and 69). On *h* and *j* the black is a purple (manganese) black, on the others a brown black;

¹ Only *j*, by reason of its thick over-glaze, might be classified with Rice's White Painted Ware from his description; all the other fragments are more akin to B 3, Late *Sgraffito* Ware, due to the presence of *sgraffiti* on some pots with like painted decoration and to the darker color of the clay. Identical sherds from Sparta, however (*B.S.A.* 17, 1910-11, Pl. XVIII 61, 66, 73, 75), are identified by Rice with his White Painted Ware (*Byzantine Glazed Pottery*, p. 108).

as *g* shows, on which the over-glaze is lacking, the black is a matt paint (not fluxed in the baking) whereas the green is itself a glaze. The shape is a fairly deep bowl with a tall, straight rim; profile of *k* on Pl. X 10. The feet are low to medium. The occurrence of this black and green decoration in conjunction with rather poor linear bands and centres of the Early *Sgraffito* style at Corinth and Sparta indicates that this ware is partly contemporaneous with the latter phases of that style but the gradual



Fig. 18. Byzantine Pottery; Painted Wares

degeneration traced in the decay of the designs and the progressive deterioration and final disappearance of the over-glaze show that many of the specimens are later. Its history would then seem to run parallel to that of the Slip Painted Ware and this is proved by the fact that the two are usually found together. If this is really the equivalent of the Constantinople White Painted Ware it is to be dated with it to Palaeologue times although in that case the presence of so many examples at Sparta is surprising and points, perhaps, to extensive use throughout the thirteenth century as well.

The piece, Fig. 18*l*, is probably a variety of this ware. Under a fair glaze of light yellow, patterns in the late *sgraffito* style are drawn in brown-black without the addition of green. Compare the Sparta sherd B.S.A. 17, 1910-11, Pl. XVIII 75.

3. *Turkish Painted Ware.* Figs. 19, 20.

Shapes and colors are different from the above. Linear designs are painted in light blue under a very-light cream-green to colorless glaze and there is seldom any filling-in



Fig. 19. Turkish Pottery; Painted Wares

of outline. Where this occurs (as on Fig. 19 *g*) the color is a light "Rhodian red" but usually this color, with or without brown-black, is applied only in dots or small patches. The designs are simple and call for little comment; on Fig. 19 *d* may be represented a scene (a ship?) while the six-pointed star of *e* has been encountered already on *sgraffito* and stamped pots. The shapes are flat-bottomed plates with turned-up edges (profile of Fig. 19 *a* on Pl. X 11), small bowls with turned-up sides (profile of *b* on Pl. X 12) and jugs or pitchers (*f* and *g*). The exterior of all open shapes is slipped and glazed in a

deep bright green but on *e* the glaze outside is a dark purple brown. A general observation valid in most but not all cases (though especially so when the color is green) is that an exterior slipped and glazed is a sign of post-Byzantine date. This particular ware bears some resemblance to the so-called Dardanelles ware of the eighteenth century and should be of about the same date. It would seem to be later than Rice's Island Ware, and is, perhaps, a later form of it.



Fig. 20. Turkish Pottery; Marbled and Asia Minor Wares

The following are somewhat different but perhaps contemporaneous; Fig. 19 *h*: a *sgraffito* flower and leaves are painted in thin "Rhodian red" and light green under a light yellow glaze; *i* and *j*: floral-like designs painted in purple-black under a light yellow or colorless glaze.

On Fig. 20 are illustrated the best Turkish wares. The pieces *a-g* are of the so-called "Marbled Ware" (Rice BV); the veined effect is produced by allowing a liquid preparation of fine brown or russet clay to run over the slipped inner surface of the pot; occasionally the colored earth is laid on first and the slip run over it. The glaze

is colorless to yellow and green, sometimes with added spots of green. Almost invariably the pots are glazed outside, with or without slip. The bright red clay is usually pure and hard-baked; only one piece is made of buff clay so light in color that no slip is necessary (Fig. 20 *a*). The spotted decoration seems to be the latest (Fig. 20 *g*) and sherds in green and brown were found in the same cesspool with the pots shown in Fig. 15.

The Asia Minor wares are represented by the fragments of a number of little Kutahia

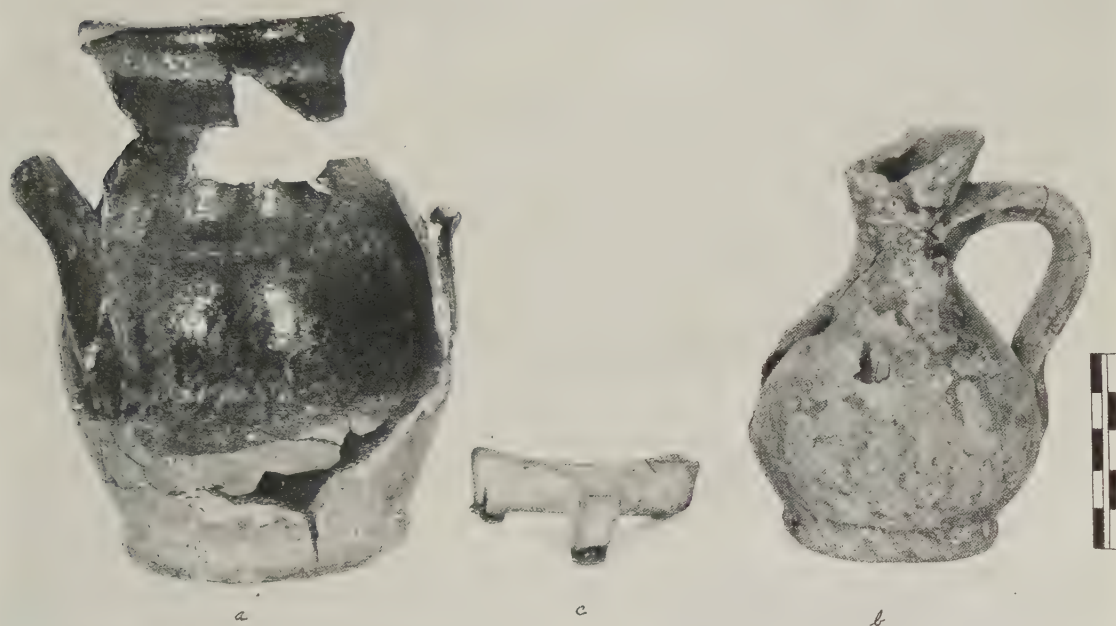


Fig. 21. Byzantine Pottery

cups (Fig. 20 *h-p*) and by one of a "Rhodian" jug (Fig. 20 *q*). Of similar sandy paste are the cups Fig. 20 *r-u* but the decoration is a simple geometric one done in black under a blue (*r* and *s*) or green (*t* and *u*) glaze.

PLAIN WARE






Plain glazed pots without any decoration were made throughout Byzantine times with shapes similar to the others. Little jugs seem to be the only shape which occurs alone undecorated, of which two types are shown in Fig. 21 *a* and *b*. The one with


two handles is unusual ($a = 384$ -P 33; height: 0.12, diameter: 0.095, d. of foot: 0.072); the white clay is thin and hard and over it inside and out is laid a light orange-buff slip on top of which is green glaze reaching outside to near the bottom; the interior is not glazed. The little trefoil-lipped jug with one handle is the most common form ($b = 349$ -P 25; height: 0.105, diameter: 0.075, d. of foot: 0.055); the light buff clay did not require a slip under the light green glaze.

The little clay support used in stacking pots in the oven (Fig. 21, $c = 953$ -P 122; length of one arm: 0.035, height: 0.02) shows that some pottery was made at Athens in Byzantine times. Glaze sticks to the points of the legs and not infrequently the marks left by these supports are visible on the interior of the pots (Figs. 9 *a*, 16 *h*, 19 *b*).

FREDERICK O. WAAGÉ, 3^D

CHRONOLOGICAL TABLE OF COINS OF GROUP J

Class	Obverse	Reverse	Symbol	References	Specimen in Agora	Evidence for dating compared with silver or other bronzes	Bellinger	Head (after Sundwall) 2nd Edition	Svoronos	Shear
I α	Head of Athena r., wearing a late Attic close fitting helmet with hinged visor, set low on forehead. Long neck guard. Behind on bowl aplustre.	A Θ Zeus naked, standing r., E holding thunderbolt in lowered r., and l. arm extended.	In field r., owl.	Svoronos, Pl. 81, nos. 1-3. Not in B. M. C.	None.	This type of late Attic helmet is similar to that on the coins of the middle of 3rd century. Compare silver coins Svoronos, Pl. 24, nos. 1-45, also compare bronze in Agora. Group H, nos. 1-10.				I believe this is the 1st bronze issue of the New Style. 229-197 n.c.
I β	Head of Athena r., wearing crested Corinthian helmet. Border of dots.	Same.	Same.	Svoronos, Pl. 81, nos. 4-6. Not in B. M. C.	1 2 others probable but not certain.	Since the reverse type is the same as I α, it undoubtedly follows it in sequence.				2nd bronze issue of New Style. 229-197 n.c.
I γ	Same.	Same.	In field r., spear of wheat.	Svoronos, Pl. 81, nos. 7-8.	None.	On silver issue with 2 monograms  compare Svoronos, Pl. 34, nos. 6-32.	Num. N. and M. no. 42, p. 5, no. 1. Also p. 6: Useless to connect symbol of spear of wheat with single silver issue.	Dates silver issue with these Monograms 229-197 n.c. H. N. p. 381.	Same as Head. 1st Period of New Style.	The only series with single spear of wheat to which it could be connected. Others have 2 spears. 229-197 n.c.
I δ	Same.	Same.	In field r., prow.	Svoronos, Pl. 81, nos. 9-16. B. M. C. p. 81, nos. 557-9, Pl. XIV, no. 7.	1 2 others probable but not certain.	Prow occurs on silver series of Karaich-Ergokle. Cf. Svoronos, Pl. 54, nos. 16-28. This type may be meant for the statue of Zeus by Leokhares.	Num. N. and M. no. 42, pp. 8 and 9. Places before Mithradates issue, 88 n.c.	Dates silver series 172 n.c. (ca.) H. N. p. 383.	Dates silver series III Period. 2nd group of New Style (after 187 n.c.).	Ca. 172 n.c.
I ε	Head of Athena Parthenos r.	A Θ Same. Θ E All in wreath of olive.	No symbol.	Svoronos, Pl. 80, nos. 22-24.	None.	There is nothing about this issue to connect it with a silver series except possibly the fact that it has no symbol, which may connect it with Diotimos-Magas, III Period, N. S. (after 187 n.c.) or Theodotos-Kleophanes, III Period, 4th group, N. S. (146-100 n.c. ca.). Cf. Svoronos, Pl. 52, nos. 18-29 and Pl. 65, nos. 1-18.		H. N. p. 382, dates silver series Diotimos-Magas ca. 150 n.c. H. N. p. 383 silver series of Theodotos-Kleophanes ca. 153 n.c.		187-110 n.c.
II α	Head of Athena r., wearing crested Corinthian helmet. Border of dots.	A Θ Zeus naked, hurling E thunderbolt r., l. arm extended. Lower r. eagle.	In field l., wheat, single spear.	Svoronos, Pl. 81, nos. 28-29. B. M. C. p. 80, no. 511. Svoronos, Pl. 73, no. 13.	None.	On silver issue with 2 monograms  compare Svoronos, Pl. 34, nos. 6-32.	See note on I γ.	Same as I γ.	Dates this with silver series of Kointos-Charmostratos, IV Period, N. S., see Pl. 73, nos. 9, 10, 13. But this silver series has 2 spears of wheat.	Only silver series with single spear of wheat. 229-197 n.c.
II β	Same.	A Θ Same. E	In field r., above eagle, star.	Svoronos, Pl. 81, nos. 17 and 18. B. M. C. p. 80, no. 542. Bellinger, Num. N. and M. no. 42, p. 1.	None.	No silver series with symbol of star alone.	Num. N. and M. no. 42, p. 1. Believes earliest coin in his hoard. Placing of letters on reverse is peculiar to these pieces?			Probably 229-197 n.c. Not certain.
II γ	Same.	AE Same. Θ	In field r., cornucopia.	Not in Svoronos. B. M. C. p. 80, no. 543.	None.	On silver issue with 2 abbreviated names Ammo-Dio, II Period, N. S., 196-187 n.c. Compare Svoronos, Pl. 39, nos. 11-20.		Dates silver issue with 2 abbreviated names Ammo-Dio 196-187 n.c. H. N. p. 381.	Dates silver issue same as Head.	196-187 n.c.
II δ	Same.	AE Same. Θ	In field l., kerknos, in field r., cornucopia.	Svoronos, Pl. 81, nos. 18? 19, 22-24. B. M. C. p. 80, no. 544. Bellinger, Num. N. and M. no. 42, p. 2.	5 1 probable but not certain.	These are both symbols which occur singly on the issues of silver with 2 abbreviated names Ammo-Dio, II Period, N. S., 196-187 n.c. Kerknos cf. Svoronos, Pl. 39, nos. 6-10. Cornucopia cf. Svoronos, Pl. 39, nos. 11-20.	Num. N. and M. no. 42, p. 5. The kerknos which occurs on his Type III (p. 2) he says is found on silver series with  in conjunction with <i>ἀμμο</i> . But this only accounts for 1 symbol.	Same as II γ.	Dates this series with that of Maasea-Nestor, IV Period, N. S., Pl. 75, nos. 12 and 13. Cf. nos. 1-10. But this only accounts for the kerknos, for there is no cornucopia on this silver series.	196-187 n.c.
II ε	Same.	A Θ Same. E	No symbol.	Svoronos, Pl. 72, no. 25.	None.	The fact that it has no symbol may connect it with Diotimos-Magas (after 187 n.c.) III Period, N. S. or Theodotos-Kleophanes (146-100 n.c.) III Period, 4th group, N. S. Cf. Svoronos, Pl. 52, nos. 18-29 and Pl. 65, nos. 1-18.		H. N. p. 382, dates silver Diotimos-Magas ca. 150 n.c. H. N. p. 383, dates silver Theodotos-Kleophanes ca. 153 n.c.	IV New Style series of 2 names. Herakleion-Herakleides, Pl. 72, no. 25. Cf. no. 24.	187-110 n.c.
II ζ	Same.	AE Same. Θ	In field l., amphora, in field r., cornucopia.	Svoronos, Pl. 81, nos. 20? 21.	None.	This symbol does not occur on silver series.				?
II η	Same.	Θ Same. AE	In field l., amphora.	Svoronos, Pl. 81, nos. 25-27. B. M. C. p. 80, nos. 545-547. Bellinger, Num. N. and M. no. 42, p. 2, IV.	None.	This symbol does not occur on silver series.				?
II θ	Same.	Θ Same. AE	In field l., one pileus.	Svoronos, Pl. 81, nos. 30-31.	None.	The single pileus does not occur on silver series. This probably belongs before II ζ because it seems that the one pileus was unsatisfactory, so they modified the old type omitting the eagle to make room for the other pileus and the eagle was never replaced.	Num. N. and M. no. 42, pp. 3 and 4, dates before II ζ, thus before 110-100 n.c.			Before 110-100 n.c.
II ι	Same.	A Θ E Same, without eagle.	In field r. and l., pilei of Dioskuri.	Svoronos, Pl. 81, nos. 33-39. B. M. C. p. 80, nos. 549-550, Pl. XIV, no. 4. Bellinger, Num. N. and M. no. 42, p. 3, IX.	4	This symbol occurs on silver issue with 2 monograms  229-197 n.c. and also on series Demetrios-Agathippos; compare respectively Svoronos, Pl. 37, nos. 1-5 and Pl. 58, nos. 1-23. This bronze series is probably to be compared with the later group, Demetrios-Agathippos ca. 110-100 n.c., 1st variety without eagle.	Num. N. and M. no. 42, p. 5, no. 4, on silver series of Demetrios-Agathippos, ca. 110-100 n.c.	Dates silver series 110-100 n.c. (ca.) H. N. p. 384.	III Period of 3rd group. New Style.	Ca. 110-100 n.c.
II κ	Same.	AE Same. Θ	In field r., star between crescents.	Svoronos, Pl. 71, nos. 8, 9; Pl. 81, nos. 45-48. B. M. C. p. 81, nos. 552-555. Pl. XIV, no. 5.	3	On silver and gold issues of Mithradates-Aristion, 88 n.c. Historically important series of gold coins occasioned by the military necessities of Mithradates' war with Rome. The gold for this issue was doubtless supplied by a subsidy from Mithradates and his agent Aristion. Cf. Svoronos, Pl. 71, nos. 1-12.	Num. N. and M. no. 42, p. 7, dates with series of Mithradates-Aristion, 88 n.c.	H. N. p. 385, dates this issue 87-86 n.c.	Dates this with King Mithradates-Aristion, IV Period, N. S. Cf. Pl. 71, nos. 1-12.	Ca. 88 n.c.
II λ	Same.	A Θ Same. E	In field l., filleted Thyrsos.	Svoronos, Pl. 70, no. 26; Pl. 81, nos. 40-44. B. M. C. p. 80, no. 548. Bellinger, Num. N. and M. no. 42, p. 4, no. XI.	3	On silver issue of Architimos-Pammenes. Compare Svoronos, Pl. 70, nos. 21-26. IV Period, N. S., series of 2 names.	Num. N. and M. no. 42, p. 5, no. 6, on series of silver of Architimos-Pammenes pp. 7 and 8, must be earlier than Head's dating, puts before 87 n.c.	H. N. p. 386, dates silver issue ca. 80 n.c.	Dates the silver series IV Period, N. S., with series of 2 names. Cf. Pl. 70, nos. 21-26. Dates bronze with the silver.	Uncertain. In style seems to compare with Mithradates-Aristion issue. ?
II μ	Head of Athena Parthenos r., border of dots.	A Θ Same, but with eagle on E l. arm extended.	In field l., spear of wheat.	Svoronos, Pl. 80, nos. 25-28; Pl. 73, no. 12. B. M. C. p. 81, no. 556, Pl. XIV, no. 6. Bellinger, Num. N. and M. no. 42, p. 10, no. G.	1	This series is obviously a later type and no silver series of the later type have single spears of wheat. It is possible that we can compare this with the symbol of 2 spears of wheat on silver series of Kointos-Charmostratos, IV Period, N. S. Cf. Svoronos, Pl. 73, nos. 16 and 17. But a preferable comparison is with the series Amphikrates-Epistratos, III Period, 4th group. Cf. Svoronos, Pl. 62, nos. 15-27, also with 2 spears of wheat. My reason for preferring this date is because of the obverse type which is explained in the text.	Num. N. and M. no. 42, p. 5, also p. 6. Useless to connect symbol of spear of wheat with single silver issue.	H. N. p. 386, dates silver series Kointos-Charmostratos 56-55 n.c. Amphikrates-Epistratos ca. 104 n.c. H. N. p. 384.	Kointos-Charmostratos, IV Period, N. S. Dates the bronze series to this period. Cf. Pl. 73, nos. 9, 10, 12.	Probably ca. 104 n.c. Reason explained in text.
II ν	Head of Athena r., wearing crested Corinthian helmet. Border of dots.	A Θ Same, eagle on l. arm E extended?	In field l., <i>ἄμμο</i> .	Svoronos, Pl. 77, nos. 26-27; Pl. 81, nos. 49-52. B. M. C. p. 81, no. 551.	None.	On silver issue Sotades-Themistokles, IV Period, N. S., series of 2 names. Compare Svoronos, Pl. 77, nos. 18-22.	Num. N. and M. no. 42, p. 5, no. 5; p. 8, wishes to place Sotades-Themistokles earlier than Head's dating, before 88 n.c.	Dates silver series of Sotades-Themistokles ca. 50 n.c. H. N. p. 387.	IV Period, N. S., series of 2 names. Dates bronze series to this silver. Cf. Pl. 77, nos. 18-22 and 26, 27.	Uncertain.
II ξ	Same.	Zeus naked, hurling thunderbolt r., l. arm extended.	Symbols illegible.	Cf. Svoronos, Pl. 81, nos. 17-52.	1					
III α	Head of Athena Parthenos r., border of dots.	A Owl r., wings closed, Θ E standing on amphora which lies on its side. All in olive wreath.	In field r., club and bow of Heracles over which hangs lion's skin.	Not in Svoronos. B. M. C. p. 78, no. 531.	None.	Symbol on silver series of Aristoph-Hera B. M. C. p. 39, nos. 334-337, Pl. XI, no. 2 and compare Svoronos, Pl. 45, nos. 1-19. III Period, N. S., 1st group, series with 3 names.		H. N. p. 383. Judging by style silver series falls early in III Period. Sundwall dates it somewhat later.	III Period, N. S., silver series of Aristoph-Hera. Does not have bronze issue. III Period, 1st group.	186-147 n.c.
III β	Same.	A Θ E Same.	In field r., tripod.	Svoronos, Pl. 72, no. 17; cf. no. 16, Pl. 79, nos. 32-33. Not in B. M. C.	1	Symbol on silver series Polemon-Alketes. Cf. Svoronos, Pl. 50, nos. 18-29. III Period, N. S., 1st group, series with 3 names, 186-147 n.c.	Num. N. and M. no. 42, p. 13, dates to silver series Polemon-Alketes, 186-147 n.c.	Dates silver series H. N. p. 383 ca. 164 n.c.	Places these coins with series of Epigenes and Zenon. Cf. Svoronos, Pl. 72, nos. 16 and 17. No evident reason for placing here. IV Period, N. S.	Ca. 164 n.c.
III γ	Same.	Same.	In field r., pilei of Dioskuri.	Svoronos, Pl. 73, nos. 8-14. B. M. C. p. 78, no. 523. Bellinger, Num. N. and M. no. 42, p. 9, no. A.	None.	On silver series of Demetrios-Agathippos. Cf. Svoronos, Pl. 58, nos. 1-23. III Period, N. S., 3rd group, series of 3 names, ca. 110-100 n.c.	Num. N. and M. no. 42, p. 12, dates ca. 110-100 n.c.	Dates silver series 110-100 n.c. H. N. p. 384.	Dates silver series III Period, N. S., 3rd group, series of 3 names.	Ca. 110-100 n.c.
III δ	Same.	Same.	No symbol.	Svoronos, Pl. 69, no. 21; Pl. 73, nos. 1-7. B. M. C. p. 79, no. 632, Pl. XIV, no. 1.	10 1 probable but not certain.	The fact that it has no symbol may connect it with Diotimos-Magas, III Period, N. S. (after 187 n.c.) or Theodotos-Kleophanes (146-100 n.c.) III Period, N. S., 4th group or Nikogenes-Kallimachos, III Period, 5th group. Cf. Svoronos, Pl. 69, no. 21, also nos. 14, 20. Resembles this later series in style.		Dates silver series of Nikogenes-Kallimachos. H. N. p. 385, dates 105 n.c. ca.	Dates III Period, N. S., 5th group, series with 3 names.	Probably ca. 105 n.c.
III ε (1)	Same.	Same.	In field r., 2 spears of wheat.	Svoronos, (1) Pl. 73, no. 11; (2) Pl. 79, nos. 22-24, 34?	(1) None. (2) 3	May be compared with silver series of Amphikrates-Epistratos. Cf. Svoronos, Pl. 62, nos. 15-27, III Period, N. S., 4th group or Kointos-Charmostratos. Cf. Svoronos, Pl. 73, nos. 9-10. IV Period, N. S. Probably belongs to the earlier group.		Dates silver series of (1) Amphikrates-Epistratos ca. 104 n.c. and series 2 Kointos-Charmostratos ca. 56-55 n.c. (1) H. N. p. 384. (2) H. N. p. 386.	Dates bronze issue with silver of Kointos-Charmostratos, IV Period, N. S., series of 2 names.	Prefer. 104 n.c.
III ε (2)	Head of Athena r., wearing crested Corinthian helmet.	Same.	Same.	B. M. C. p. 78, no. 524.						
III ζ	Head of Athena Parthenos r.	Same.	In field r., serpent.	Svoronos, Pl. 76, no. 25; Pl. 79, nos. 36-37. B. M. C. p. 78, no. 530.	4	On silver series of Xenokles-Harmoxenos. Cf. Svoronos, Pl. 76, nos. 16-24. IV Period, N. S. These magistrates held office for 3 years, during archonship of Medeios, -Disimoor dates Medeios 101-100 n.c. Archons of Athens, and again in 91-89 n.c. These 2 magistrates probably came in 2nd archonship of Medeios.	Num. N. and M. no. 42, p. 5, no. 3 and p. 6. Xenokles-Harmoxenos p. 8 prefers date 146 n.c.	H. N. p. 386, dates silver 91-89 n.c.	Dates bronze with silver of Xenokles-Harmoxenos, IV Period, N. S.	Ca. 91-89 n.c.
III η	Same.	Without AΘE.	In field l. and r., 	Not in Svoronos, unless Pl. 79, no. 19 is AE and I believe it is same coin as B. M. C. p. 79, no. 531, Pl. XIV, no. 2.	None.	Dated with silver series same monograms B. M. C. p. 77, nos. 516-522 dated ca. 86-83 n.c., Pl. XIII, nos. 7 and 8, also cf. Svoronos, Pl. 78, nos. 11-18. Ferguson, H. A. p. 154 and note 6, probably belongs to provisional government reestablished in Athens after surrender of Aristion 87/6 n.c. Sundwall 87/6 n.c. Significantly the inscription AΘE is omitted.		H. N. p. 388, resemble in style coins of ca. 150 n.c. No place for them in monogram series (229-197) or in Sulla's time (ca. 86). A on amphora indicates conformity with Athenian mint regulation. Attributes them to mint of Athenian Cleruchy in Delos Middle 2nd century.		Probably belongs 87/6 n.c. Style like Mithradates issues.

III ϵ	Head of Athena Parthenos r., border of dots.	A Θ E Owl r. wings closed, standing on amphora which lies on its side. All in olive wreath.	In field r., helmet.	Svoronos, Pl. 70, no. 4.	None.	Symbol on silver series of Alkates-Euangion. Compare Svoronos, Pl. 70, nos. 1-3. IV Period, N. S., series of 2 names.		Dates silver issue shortly after Sulla's conquest after 86 a.c. <i>H. N.</i> p. 386.	Dates silver and bronze IV Period, N. S., series of 2 names.	Shortly after 86 a.c.
III ι	Same.	Same.	In field r., head of poppy between 2 spears of wheat.	Svoronos, Pl. 73, no. 25; Pl. 79, nos. 15-17, 29-31. B. M. C. p. 78, no. 527. Bellinger, <i>Num. N. and M.</i> no. 42, p. 10, no. C.	2 probable but not certain.	Symbol on silver series of Lysandros-Oinophilos. Compare Svoronos, Pl. 73, nos. 18-24. IV Period, N. S., series of 2 names.	<i>Num. N. and M.</i> no. 42, p. 12, no. 2, dates with silver issue of Lysandros-Oinophilos.	<i>H. N.</i> p. 387, ca. 60 a.c. dates silver issue.	Dates silver and bronze IV Period, N. S., series of 2 names.	Ca. 60 a.c.
III κ	Same.	Same.	In field r., flower.	Svoronos, Pl. 70, no. 20.	None.	This symbol doesn't occur on any silver issue. Svoronos thinks that in style it is to be compared with Architimos-Demetrios. Compare Svoronos, Pl. 70, nos. 15-19.		Dates Architimos-Demetrios ca. 50 a.c. <i>H. N.</i> p. 386.	Dates silver and bronze IV Period, N. S., series of 2 names.	Ca. 50 a.c.
III λ	Same.	Same.	In field r., $\beta\delta\sigma\chi\omicron\varsigma$.	Svoronos, Pl. 77, nos. 23-25; Pl. 79, nos. 18-21. Bellinger, <i>Num. N. and M.</i> no. 42, p. 10, no. E.	1	Symbol on silver series of Sotades-Themistokles. Compare Svoronos, Pl. 77, nos. 18-22. IV Period, N. S., series of 2 names.	<i>Num. N. and M.</i> no. 42, p. 5, no. 5, dates bronze with silver of Sotades-Themistokles, p. 8 wishes to place Sotades-Themistokles earlier than Head's dating, before 88 a.c.	Dates silver series of Sotades-Themistokles ca. 50 a.c. <i>H. N.</i> p. 387.	Dates silver and bronze IV Period, N. S., series of 2 names.	Uncertain, but may be ca. 50 a.c.
III μ	Same.	Same.	In field r., kerechnos.	Svoronos, Pl. 76, no. 11; Pl. 79, no. 35.	None.	Symbol on silver series of Mnaseas-Nestor. Compare Svoronos, Pl. 75, nos. 1-10. IV Period, N. S., series of 2 names.		Does not date silver or bronze issue of Mnaseas-Nestor, but puts in IV Period, 86 a.c. to time of Augustus. <i>H. N.</i> p. 387.	Dates silver and bronze issues IV Period, N. S., series of 2 names.	Probably belongs 2nd half of IV Period, 86-80 a.c.
III ν	Same.	Same.	In field r., filleted Thyrsos.	Svoronos, Pl. 70, no. 25.	None.	Symbol on silver series of Architimos-Pammenes. Compare Svoronos, Pl. 70, nos. 21-26. IV Period, N. S., series of 2 names.	<i>Num. N. and M.</i> no. 42, p. 5, no. 6, on silver series of Architimos-Pammenes pp. 7 and 8, must be earlier than Head's dating, puts before 87 a.c.	<i>H. N.</i> p. 386, dates silver issue ca. 90 a.c.	Dates silver and bronze series IV Period, N. S., with series of 2 names.	Uncertain. In style seems to compare with Mithradates-Ariston issue?
III ξ	Same.	Same.	In field r., cicade.	Svoronos, Pl. 71, no. 17-18; Pl. 79, nos. 38-42. B. M. C. p. 78, nos. 525-526. Bellinger, <i>Num. N. and M.</i> no. 42, p. 10, no. B.	6	Symbol on silver series of Demochares-Pammenes. Compare Svoronos, Pl. 71, no. 16. IV Period, N. S., series of 2 names.		<i>H. N.</i> p. 386, dates silver of Demochares-Pammenes after 30 a.c. in the time of Augustus.	Dates silver and bronze series IV Period, N. S., with series of 2 names.	After 30 a.c. seems correct on account of late character of coins.
III ς	Same.	Same.	In field r., caduceus.	Svoronos, Pl. 72, no. 4; Pl. 70, nos. 25-28. B. M. C. p. 78, nos. 528-529. Bellinger, <i>Num. N. and M.</i> no. 42, p. 10, no. D.	2	Symbol on silver series of Dionysios-Demostrotos. Compare Svoronos, Pl. 72, nos. 1-3. 2 silver and 1 gold. IV Period, N. S., series of 2 names.	<i>Num. N. and M.</i> no. 42, p. 13, no. 3. Says caduceus found on series of silver of Polycharm and Nikog; on this series it is a winged caduceus and not the simple type found on our bronze series.	<i>H. N.</i> p. 386. Says silver series of Dionysios-Demostrotos is the last autonomous issue of silver coins; after 30 a.c. Time of Augustus.	Dates silver, gold, and bronze IV Period, N. S., series of 2 names.	After 30 a.c. Time of Augustus.
IV	Same.	Same.	Symbols illegible.	Svoronos, Pl. 79, cf. nos. 1-42.	15					
IV	Same.	A Θ E Nike flying r., holding wreath with both hands; all in wreath.	None.	Svoronos, Pl. 78, no. 10; Pl. 80, nos. 15-17. B. M. C. p. 82, no. 560. Bellinger, <i>Num. N. and M.</i> no. 42, p. 11, no. H.		On the silver series of Ktesis-Euma, II Period, N. S., with series of 2 names abbreviated, 196-187 a.c.; is the symbol of Nike flying to the right, holding a crown with both hands. There are other series with Nike on them as symbol but none so nearly like the reverse of this coin. Compare Svoronos, Pl. 42, nos. 1-20.	<i>Num. N. and M.</i> no. 42, p. 12, assigns to period after Sulla.	<i>H. N.</i> p. 382, dates silver series 196-187 a.c. 2 abbreviated magistrate names.	Dates the bronze with the silver series of Philokrates-Kalliphon in the IV Period, N. S., with series of 2 names. The Nike on this silver series flies l., holds wreath in r. hand and palm in l. Resemblance not close.	196-187 a.c. Ktesis-Euma, II Period, with 2 abbreviated names.
V	Same.	A Θ E Tripod.	In field l., poppy-head, in field r., thunderbolt.	Svoronos, Pl. 72, no. 16; Pl. 80, nos. 1-7. B. M. C. p. 83, nos. 566-9, Pl. XIV, no. 11. Bellinger, <i>Num. N. and M.</i> no. 42, p. 11, no. K.	1	The tripod occurs as a symbol on the silver series of Polemon-Alkates, III Period, N. S., 1st group, series of 3 names. Compare Svoronos, Pl. 50, nos. 18-27.	<i>Num. N. and M.</i> no. 42, p. 13, dates with silver series of Polemon-Alkates.	<i>H. N.</i> p. 383, dates silver series after 104 a.c.	Dates series of bronze with silver of Epigines-Zanon, IV Period, N. S. Although there is nothing about this silver series that would warrant a comparison with the bronze, unless Svoronos	Probably after 164 a.c.
VI	Same.	A Θ Statue of Apollo Delios E naked, facing, holds statue of 3 graces and strung bow.	In field l., cicade.	Svoronos, Pl. 56, nos. 26-27; Pl. 80, nos. 8-14. B. M. C. p. 82, no. 564, Pl. XIV, no. 9. Bellinger, <i>Num. N. and M.</i> no. 42, p. 11, no. J.	2	Apollo type used as symbol on silver series of Sokrates-Dionysodo(ros). Statue points to time when Delos was presented to Athens by the Romans. Head <i>H. N.</i> p. 383. Compare Svoronos, Pl. 56, nos. 1-25.	<i>Num. N. and M.</i> no. 42, p. 13, no. 5, dates with silver series of Sokrates-Dionysodo(ros).	Dates silver series 162 a.c. <i>H. N.</i> p. 383.	Dates with silver series of Sokrates-Dionysodo(ros), III Period, 2nd group, series with 3 names.	162 a.c.
VII α	Head of Athena r., wearing crested Corinthian helmet. Border of dots.	A Θ E Artemis dressed in short chiton, advancing r., holding torch in 2 hands.	None.	Svoronos, Pl. 73, no. 17; Pl. 81, nos. 53-56. B. M. C. p. 83, no. 573.	1	Artemis advancing r., holding torch with 2 hands, is the symbol on the silver series of Phanokles-Apollonios, III Period, 3rd group. Series of 3 names. Cf. Svoronos, Pl. 61, nos. 1-4. Behrendt Pick who composes the tables in Svoronos, <i>Les Monnaies d'Athènes</i> identifies this figure as Iakehos p. XII Svoronos, but B. M. C. identified it as Artemis. The similarity of the symbol on the silver series and the Artemis of the bronze series is most striking.		<i>H. N.</i> p. 383, dates silver series of Phanokles-Apollonios ca. 161 a.c.	Dates the bronze issue with the silver series of Leukios-Antikrates, IV Period, N. S., which has the symbol of Artemis running l., holding 2 torches and beside her stands Demeter holding a torch. The comparison here is far from close.	Phanokles-Apollonios. Ca. 161 a.c.
VII β	Head of Artemis r., border of dots.	Same.	None.	Svoronos, Pl. 73, no. 16.	None.					
VIII	Head of Gorgon, facing.	A Θ E Athena advancing r., armed with helmet, spear and aegis.	None.	Svoronos, Pl. 66, nos. 23 and 24. B. M. C. p. 84, nos. 578-581, Pl. XV, no. 1. Bellinger, <i>Num. N. and M.</i> no. 42, p. 11, no. M.	1	Gorgon appears as symbol on silver series of Niketes-Dionysios. Compare Svoronos, Pl. 66, nos. 1-22. III Period, N. S., 4th group, series of 3 names. Attributed to Sciathus (?) by Svoronos, but some doubt.	<i>Num. N. and M.</i> no. 42, p. 13, no. 8, dates with silver series of Niketes-Dionysios.	<i>H. N.</i> p. 385, dates silver series of Niketes-Dionysios ca. 125 a.c.	Dates with silver series of Niketes-Dionysios, III Period, N. S., 4th group, series of 3 names.	Ca. 125 a.c.?
IX	Dolphin r., with trident erect. Border of dots.	A Θ E Kerechnos, all in corn wreath.	No symbol.	Svoronos, Pl. 77, no. 15; Pl. 107, nos. 1-8. B. M. C. p. 90, no. 641, Pl. XV, no. 13. Bellinger, <i>Num. N. and M.</i> no. 42, p. 12, no. O.	1	The dolphin and trident is the symbol on one of the silver series of Xenokles-Harmoxenos, IV Period, N. S., series of 2 names. Compare Svoronos, Pl. 77, nos. 1-14.	<i>Num. N. and M.</i> no. 42, p. 13, no. 9, assigns to silver series of Xenokles-Harmoxenos. p. 8 prefers date ca. 146 a.c. for this series.	<i>H. N.</i> p. 386, dates silver series of Xenokles-Harmoxenos 91-89 a.c. in the archonship of Medeios.	Dates silver and bronze series in the 3rd group of Xenokles-Harmoxenos, IV Period, N. S., series of 2 names. Attributes bronze series to Athenian clemens at Delos.	Probably 91-89 a.c.
X	Head of Athena Parthenos r., border of dots.	A Θ Sphinx wearing modius, E seated r., all in olive wreath.	None.	Svoronos, Pl. 72, no. 11; Pl. 80, nos. 18-21. B. M. C. p. 83, nos. 570-572, Pl. XIV, no. 12. Bellinger, <i>Num. N. and M.</i> no. 42, p. 11, no. L.	6	The sphinx is the symbol on the silver series of Diophantos-Aeschines, IV Period, N. S., series of 2 names. Compare Svoronos, Pl. 72, nos. 8-10.	<i>Num. N. and M.</i> no. 42, p. 13, no. 7, dates with silver series of Diophantos-Aeschines.	<i>H. N.</i> p. 385, dates this silver series early in the 1st century.	Dates with silver series IV Period, N. S., series of 2 names.	Early in 1st century.
XI α	Head of Athena Parthenos r., border of dots.	A Athena advancing r., Θ E armed with helmet, spear, and aegis. All in wreath.	In field r., owl.	Svoronos, Pl. 80, nos. 29-32. B. M. C. p. 82, nos. 561-562, Pl. XIV, no. 8. Bellinger, <i>Num. N. and M.</i> no. 42, p. 11, no. I.	8 7 others probable but not certain.	No clue as to date.				
XI β	Same.	Same.	In field r., serpent.	Svoronos, Pl. 80, nos. 33 and 34. B. M. C. p. 82, no. 563.	1	No clue as to date. Serpent probably an attribute of Athena and not a symbol.				
XI γ		Same.	Same.	Svoronos, Pl. 80, no. 35.	None.	No clue as to date. May be tessera.				
XII	Head of Athena Parthenos r., border of dots.	A Owl to r., on prow of Θ E ship. All in olive wreath.	None.	Svoronos, Pl. 80, nos. 37-40 and 43 (41, 42, 44?). B. M. C. p. 79, no. 596?	6	No clue as to date.				
XIII	Same.	A Two owls r. and l. sur- Θ E rounded by wreath.	None.	Svoronos, Pl. 80, nos. 45-47.	None.	The reverse is similar to 3rd century coins, but possibly is a type that lingered on and was found on the smaller bronze pieces throughout the New Style.				
XIV	Same. helmet ornamented 2 olive leaves.	A Θ E Two owls half facing on thunderbolt. Beneath A Θ E. All in olive wreath.	None.	Svoronos, Pl. 24, nos. 60-68. B. M. C. p. 79, nos. 537-544, Pl. XIV, no. 3. Bellinger, <i>Num. N. and M.</i> no. 42, p. 4.	11 2 probable but not certain.	Bellinger, <i>Num. N. and M.</i> no. 42, pp. 4 and 5. Probably the fractional issue used throughout the whole period.				

